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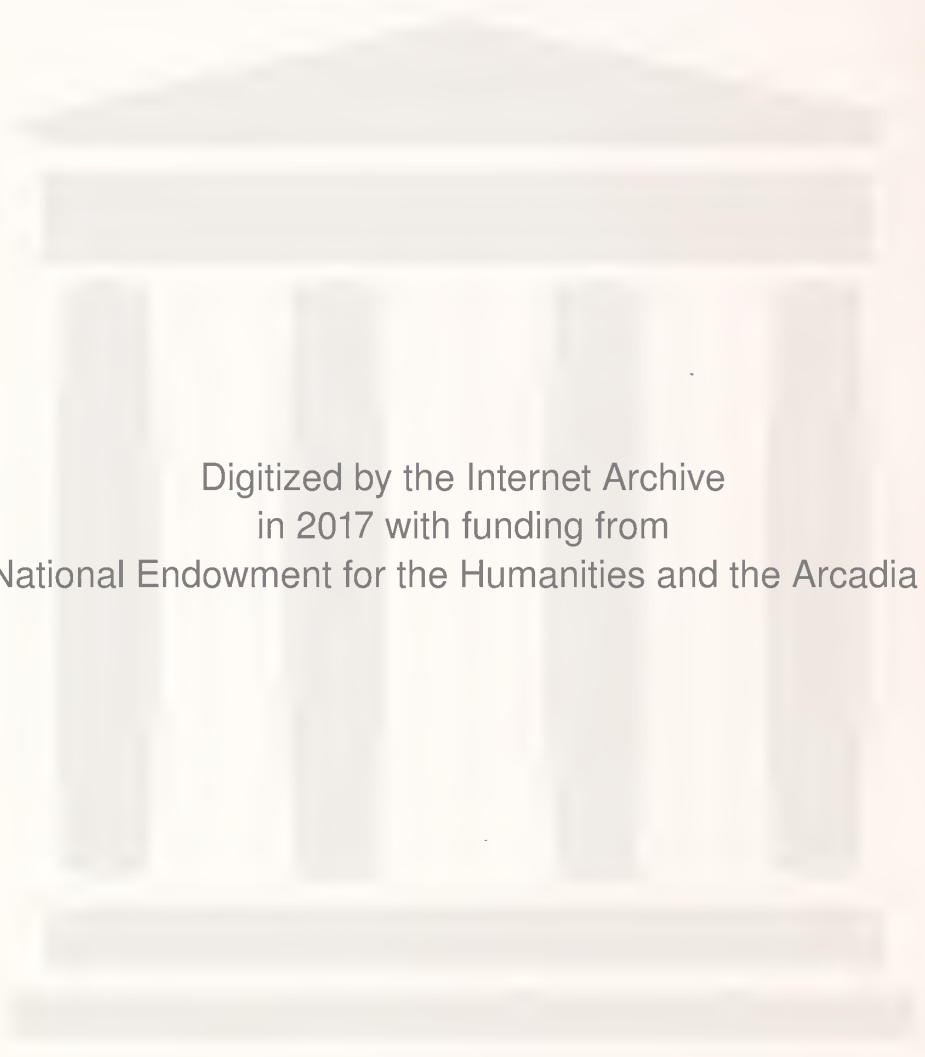


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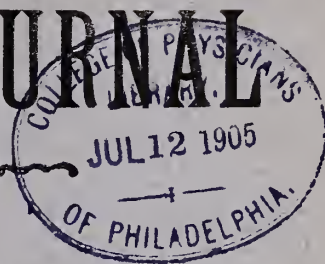
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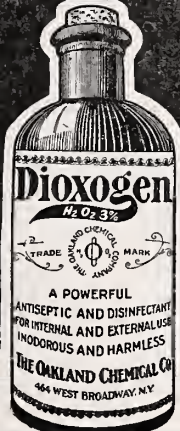
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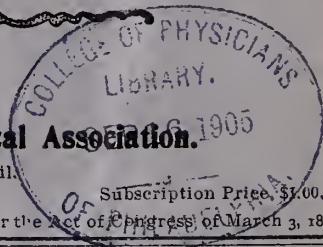


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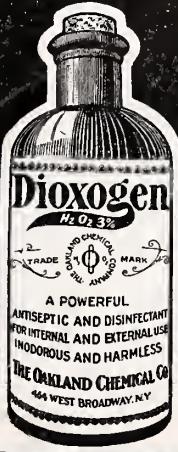
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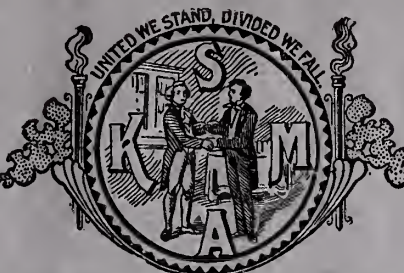
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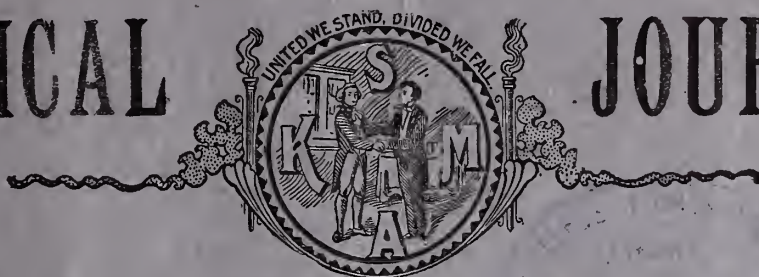
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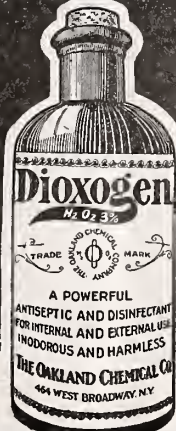
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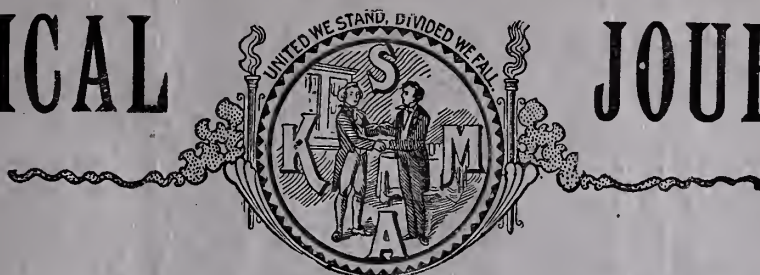
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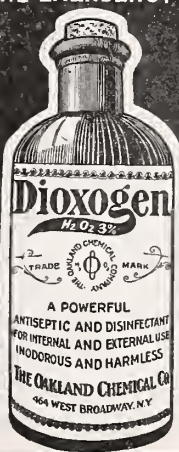
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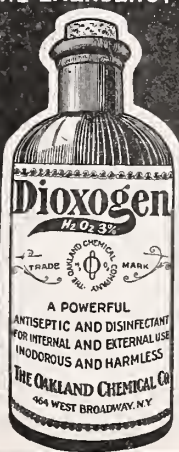
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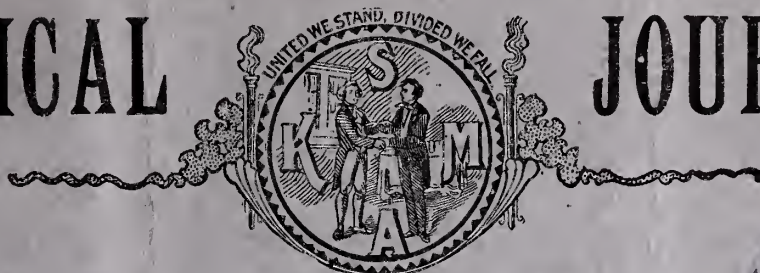
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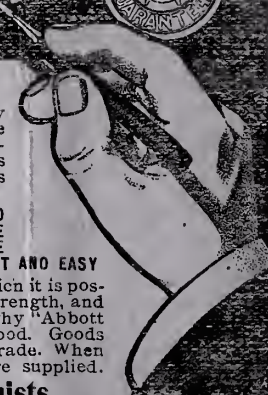
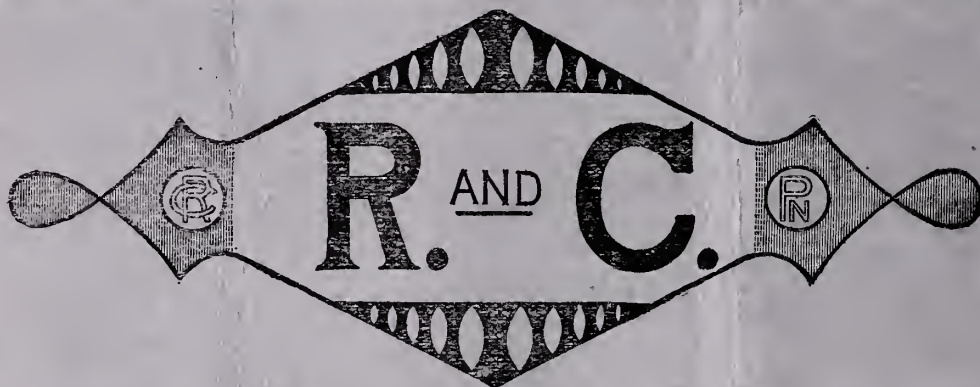
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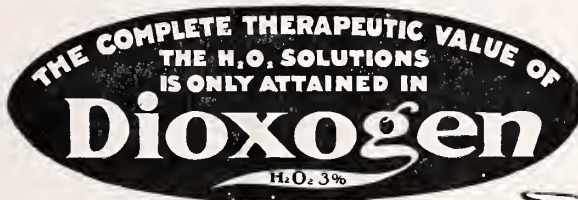
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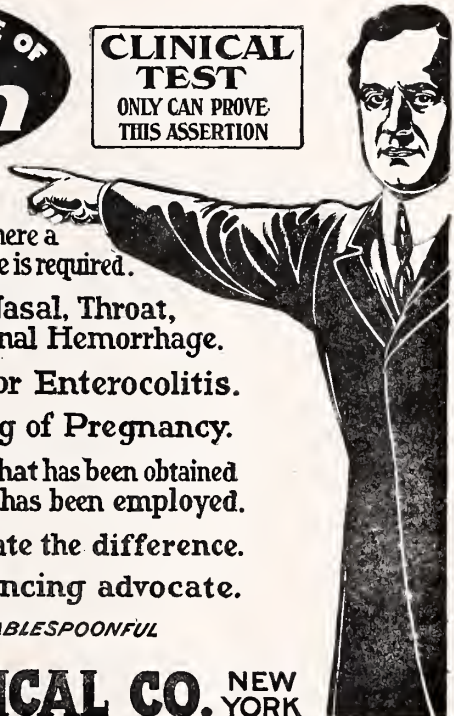
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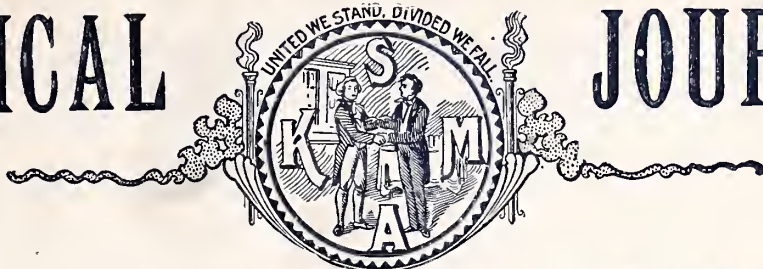
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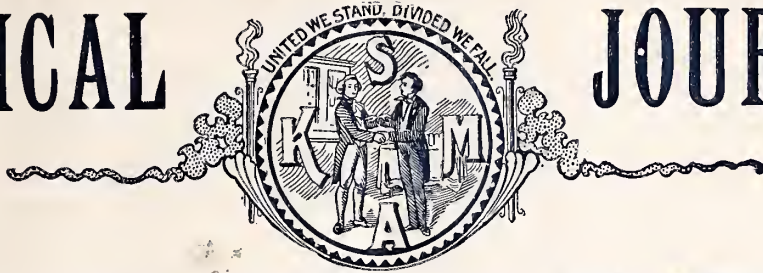
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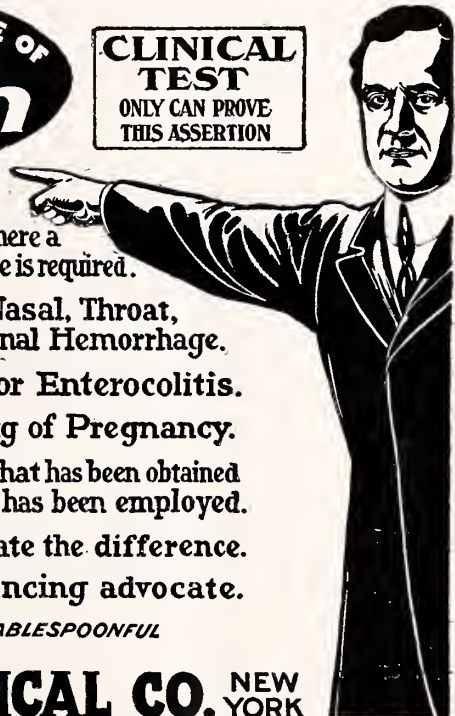
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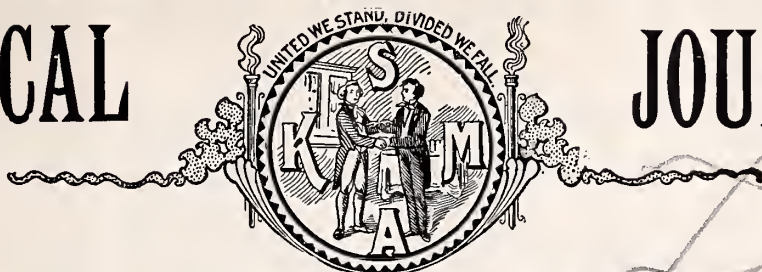
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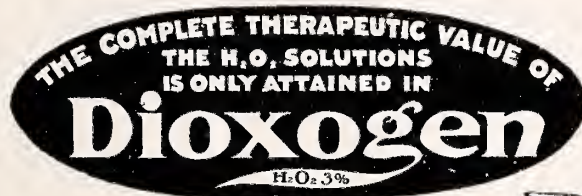
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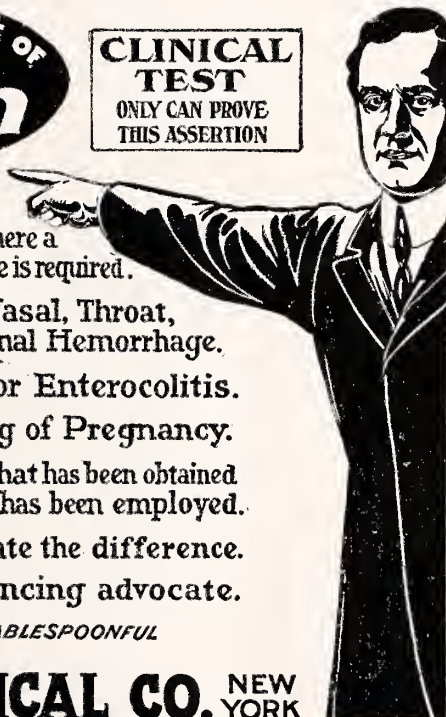
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Miss Mabel L. Pomeroy.....	1904—Norton Infirmary, Louisville	Norris & Stevens Aves., Louisville	C E 570
Miss A. A. Milward.....	—Norton Infirmary, Louisville	545 E. Main, Lexington, Ky.	H 1612
Miss Beatrice Moore.....	1902—Good Samaritan Hospital, Lexington	177 S. Upper, Lexington, Ky.	H 874
Miss Elizabeth Morton.....	1903—Good Samaritan Hospital, Lexington	182 E. Sixth, Lexington, Ky.	T 1341
Miss Hallie E. Mosby.....	1897—Norton Infirmary, Louisville	104 E. Broadway, Louisville	(both) 650
Miss Katherine O'Connor.....	1899—Norton Infirmary, Louisville	421 W. Chestnut, Louisville	C 3771
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Miss C. Shoemaker.....	1899—Louisville City Hospital	108 E. Broadway, Louisville	{ H 217 C 929
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THE USES OF CHLOROFORM.

By D. G. SIMMONS, M. D., Adairville, Ky.

The province of the physician is to administer to the diseased body and mind, to relieve human suffering, to prevent and cure disease when this may be done, and when death becomes inevitable, then, when all has been done that human ken can compass, to smooth the rugged road down to the tomb.

As more or less physical suffering is the lot of mankind—and it is a sad commentary on our boasted civilization that the more refined we become the greater is our susceptibility to disease and suffering—one of the most important problems which can confront the doctor from the time when he is called to his first case to the time when he himself must respond to the roll-call of the grim reaper, is how to best relieve, or at least to mitigate pain and distress.

The physician who can most speedily and effectually relieve pain, compatible with safety, other things being equal, is the one whose ministrations will be most gratefully received and most kindly remembered.

Without reference to other of the many methods of relieving pain, it is my object in this paper to call attention to and emphasize some of the methods of using chloroform for this purpose, methods that are either not mentioned in the text books, or if mentioned at all, only incidentally and with insufficient emphasis.

Chloroform is one of those medicines that may be used in so many different ways, and is in such frequent demand in relieving suffering, that its constant presence is almost indispensable to the doctor, especially to the country doctor, some of whose patients are so remote from a drug store.

While it is much more prompt and powerful in quelling pain than opium and its derivatives, it is much less lasting than the latter; but the two remedies are not at all antagonistic, and they may be used supplementary the one to the other.

Chloroform may be used externally, internally by way of the stomach, and by inhalation.

External Use. In cases of muscular spasm, flatulent, hepatic and nephritic colics, intense pains of neuralgia, etc., chloroform used externally may be made to do yeoman's service. The intensity of these pains is frequently such as to make minutes appear like hours and hours like eternity, and you want some-

thing to stop the pains at once, acting somewhat like a stop-watch. It requires about a half hour or an hour for anodynes administered by the mouth to take effect, depending on whether or not the stomach is empty or in a passive state of congestion, and from three to twenty minutes when administered hypodermically. Now there is an interval of suffering, between administration and effect, which it is very desirable to cover. How shall we give our patients relief during this interim?

A good many things may be used more or less effectually, but chloroform is the agent that does it quickest and best. Not only so, but by its use less of the anodyne becomes necessary, and when aided by heat and other local remedies, it will frequently suffice without any anodyne at all, which of course is preferable.

I use it topically in this way:— Bare the surface over the site of the pain, then pour almost a half drachm of chloroform in the palm of the hand and clap it to the surface, holding the flat of the hand in close contact for a few moments, then where is your pain? True, it burns the skin like blazes for a short time, but the change in the kind of pain gives more or less relief in itself; besides, it is only necessary for the drug to remain on for a minute or two, then move the hand to a contiguous surface and the pain for which this powerful counter-irritant was used is either effectually removed, or it holds it in check until the anodyne has had time to get in its effect.

When used as an embrocation to sprains and bruises, the chloroform liniment is preferable to the pure chloroform applied locally. A very useful application of chloroform for persistent rigidity of the perineum in labor is as follows:

R.
Chloroformi zii.
Etheris zi.
Spts. odorat oj. m.

This applied to the perineum by muslin compress is very effectual in overcoming rigidity of that organ where it is unduly delaying labor, as it so frequently does, and in thus relaxing this rigid state it prevents many lacerations which would otherwise occur—"a consummation most devoutly to be wished."

Internal Use by the Stomach. The internal use of chloroform by the stomach is rather limited. The spirits of chloroform is quite ef-

ficacious in the forms of nausea attended by an anemic state of the gastric mucus membrane. It also promotes digestion in the same condition of the stomach. I have used the spirits of chloroform combined with carbonate of ammonia and camphor water with most satisfactory results in cases of irritable cough and dyspnea, as from la grippe and asthma.

Use By Inhalation. The useful field of chloroform for anaesthetic purposes is too well established to justify any elaboration here. In the major operations of surgeons, in which profound and protracted anaesthesia is necessary, statistics have abundantly shown ether to be safer for the patient, but in the numberless minor operations in which protracted anaesthesia is not necessary, such as are seen so frequently by the country doctor who has to do a little of everything, chloroform is by far the preferable agent. Life is too short for the general practitioner to waste on ether for most of his purposes, when he has access to an agent which acts so much quicker and better, and which is equally safe to the patient when properly managed.

In its administration by inhalation the patient's head should be low, the clothing about the neck and chest loose, and draughts of air shut off. The person administering it should always be on the alert to detect the least change in the pulse or the breathing—an agent so potent for good is equally potent for evil if used recklessly. When the Esmarch inhaler is at hand its use is preferable, but in emergent cases away from the office where this inhaler is not at hand, a large glass goblet with a small napkin in its bottom answers a very good purpose. It may thus be used only a few minutes in cases of great suffering, supplementary to the use of general remedies and local applications, or more profoundly as in spasms, cramps, epileptic seizures, obstetrics, etc., or to total unconsciousness when that is necessary.

The consideration paramount to all others in connection with the administration of this medicine is the means to be resorted to for resuscitation of the patient if syncope or paralysis of the heart or lungs should occur. It is a good rule to give a tablespoonful of whiskey before the administration is commenced, and to prepare a dose of digitalin to be used hypodermically when there is a suspicion of weakening pulse or inadequate breathing, but after the pulse becomes *very weak*, or stops at the wrist, don't wait and depend on these remedies, or on artificial breathing, or electricity—don't waste the precious moments by depending on anything but such mechanical means as will, by gravitation, furnish to the heart and brain the blood which the heart is

too feeble to pump up and propel to the brain. In this most critical state of things a hypodermic of neither whiskey, salt solution, digitalin, strychnia nor anything else can be absorbed. Every moment lost may cost a life. There is one remedy sufficiently potent for the emergency, and one only. All others now are merely subsequent accessories. This one all-important remedy is to lower the head so as to empty, as it were, the blood into the heart and brain. I do not mean merely to turn the chair down a little, or elevate the foot of the bed. This is not sufficient. You want, without the loss of a moment, to grab up the patient bodily and swap ends, head hanging down, feet up towards the ceiling, then grasping the tongue with a napkin or handkerchief to keep it from slipping, draw it out and off from the larynx and practice a modified Sylvester's method of artificial respiration. Gravitation is thus called into play to take the place of the force-pump when the pump has lost its gearing. This remedy is simple, rational, always at hand and is quickly effectual.

Whatever the rationale of this procedure may be, whether by facilitating the filling up of the right cavities of the heart by gravitation, or by favoring the feebly acting heart in furnishing aerated blood to the brain by the same cause of gravitation, or both, which appears more likely, it matters not—we will leave that to the hair-splitters. It is facts obtained by enlightened bedside observation that we want, and this is a fact established by abundant observation. But to do this successfully one needs to keep a cool and deliberate head, and know exactly what to do and how to do it, and do it at once. "If it were done when 'tis done, then 'twere well it were done quickly."

I will cite some instances in my own practice exemplifying the wisdom of this procedure.

CASE FIRST. A six-year-old boy fell off of a fence and drove a splinter of wood through the base of his tongue, entering beside the frenum and snapping off about one half inch beneath the surface. Night had set in before I saw him. I found the tongue transfixed, swelling rapidly, and the throat so filled up with it that breathing was already becoming difficult. The little boy was made to realize his condition, and when admonished to give all the assistance he could, so that chloroform would not have to be used, this not being a desirable case for its use, he bore up most heroically under the process of enlarging the orifice, and the efforts to grasp the body with the forceps, but before it could be secured his courage failed him, nor could any kind of urging influence him to submit to any

further procedure. The use of chloroform became inevitable. He promptly passed under the influence of it, and a few seconds more sufficed to remove the splinter, but when he was turned on his side so the blood and saliva might escape, it was observed that the pulse at the wrist was absent, the breathing had stopped, and he was most horribly pale. The father was immediately directed to grasp the boy's legs and carry them over his (the father's) shoulders, boy's head hanging down, and placed thus, back to back, the father was pushed with his face to the wall to hold him steady; the boy's tongue was grasped with a handkerchief and pulled forward, and a system of alternate pressure and relaxation of the chest walls was instituted, about fifteen to the minute. In a few moments his face began to show some color, and the pulse and respiration became perceptible. When he appeared to be entirely resuscitated he was eased down on the table, but within a minute the same state of things prevailed again, and the same remedy was applied, and after keeping him in that position as long as his father was able to hold him, he was very gradually lowered again and this time his heart and lungs continued to act normally, and there was no further trouble. If I were called on to instance the happiest moment of my whole life, I would say it was when I saw the color returning to that boy's face.

CASE SECOND. This was a young lady, very anemic, and weak and prostrated from suffering for weeks with sore gums and aching teeth as well as from loss of sleep and inadequate nourishment. She wished to have all her teeth extracted under chloroform. I did not regard her condition favorable for chloroform anaesthesia and tried to dissuade her, but she positively refused to have even one tooth drawn without being thoroughly anaesthetized. I know I should have refused to administer it, but what can a man do with a beautiful young lady but comply with her wishes? Before the operation was half completed syncope occurred, and in a moment she was found pulseless, breathless, pale, and apparently dead. A six and a half footer happened to be present, and I had him to suspend her perpendicularly, the head down, and the same course was pursued as in the preceding case, and with the same good results. After she had recruited herself with suitable food and sleep for several days, the operation was completed under chloroform without mishap.

A few words now in regard to the use of chloroform in labor and I will close. Where the patient bears it well and its use does not retard the labor or weaken the pains and the woman is being exhausted from the protraction of the labor, the use of chloroform is

an inestimable boon to the poor sufferer. While writing this paper I had a case of obstetrics in a nervous subject, who refused to aid labor by contraction of the abdominal muscles, and did everything she could to nullify the pains and prevent the suffering, although everything else was favorable to prompt delivery. A little chloroform by inhalation in this case so blunted her suffering that the contractions promptly became effective, and the labor was terminated within a half hour. But in some cases it seems to weaken the pains, and so delays labor that its use has to be abandoned. When used for this purpose only partial anaesthesia should be sought, just sufficient to blunt the sensibilities, and thus allow the patient to "bear down" and promote advancement of labor.

There is another condition in which the pains are too powerful and labor is advancing so rapidly that the perineum is endangered. In this case the patient should be impressed more deeply so as to weaken the pains.

When it can be used favorably, patients are very grateful for the comfort obtained in this dreadfully trying hour of their anguish.

SYPHILIS.*

By J. W. PARKER, M. D., Grays, Ky.

This is a very rare disease in the mountains of southeastern Kentucky. Indeed it is so rare that only a few physicians, of this section, ever see more than a half dozen cases during a whole year in their practice. We know that all venereal diseases are very rare in this section, yet we see more cases of specific urethritis than we do of syphilis, the ratio being about as one is to six in favor of urethritis. I have practiced whole years in this section and never had a single case of syphilis during said time. Not one patient out of one hundred has syphilis in any of its forms. Those patients who have it are mostly men or boys who have just returned from a visit to some of the larger cities, or who have just gotten back from the army.

Taylor says syphilis is a chronic infectious disease which begins as a local lesion, which lesion is caused by some morbid secretion, or virus, or the blood derived from a previously syphilitic person. Beginning thus, as a local infection, it promptly invades the whole organism, more especially its connective tissue, induces inflammatory process of a low grade, and gives rise to a low form of cell growth called granulation tissue. He says it is, therefore, a chronic granulation tissue disease of protracted, irregular and intermittent course which in some respects resembles leprosy and

* Read before the Knox County Medical Society, Barbourville, Ky., December 20, 1904.

tuberculosis.

Syphilis may be inherited or acquired. Acquired syphilis is most usually transmitted during sexual congress, but is quite frequently contracted in other ways. The conditions for inoculation are such that the disease may be transmitted extragenitally with great facility. It occurs through contact of the infectious principle of syphilis with a surface in a healthy individual from which the epidermis has been removed. The removal of the epidermis is essential, because the syphilitic infection has no corrosive properties by itself. Uncleanliness, chancroids, alcoholism, long prepuce in the male and labia in the female, and indiscriminate sexual congress of both sexes are predisposing causes of the disease.

The immediate cause of syphilis is infection by a peculiar morbid principle contained in syphilitic blood, or in the secretion of the syphilitic lesion. This principle although it has never been demonstrated positively is now quite generally believed to be a germ.

After the poison of syphilis has been absorbed a certain period elapses before its morbid effects become manifest. This usually is about 21 days, more or less, and it is very likely to be more or less, but this is about the average duration. One case is on record as having developed in twenty-four hours upon a wounded finger; other cases have been known to develop as late as seventy and seventy-five days. Ricord divides this disease into three periods—the primary, the secondary and the tertiary. The primary he divides into two parts, called periods of incubation. The first period of incubation is the time which elapses between the infecting coitus or contamination and the appearance of the hard chancre. The second period of incubation includes the intervals of time between the appearance of the initial lesion or chancre and the evolution of the secondary manifestations.

The secondary stage occupies the first year or two, in which the lesions are generalized, or rather superficially seated and of tolerably mild nature and course.

The tertiary stage begins at the expiration of two years and perhaps in some cases earlier, and is peculiar in the fact that its lesions are, as a rule, more localized and circumscribed, but are deeper seated and of a more severe character.

The primary stage of syphilis begins with the act of infection in which the virus is deposited upon some portion of the body genital, or extragenital. From the date of infection a period of time elapses before any visible manifestation of syphilis shows itself, which is called the first period of incubation.

With the appearance of the hard chancre the second period of incubation begins. This period lasts about six weeks. At present I call to mind a case in which I had made the diagnosis of chancroid which developed marked secondary lesions as late as the beginning of the fourth month. These two periods of incubation constitute the first or primary stage of syphilis, which may occupy in its evolution a duration of sixty or ninety days.

With the expiration of the second period of incubation, or that of local manifestations the secondary stage of syphilis, or as it is called, the stage of general or constitutional manifestations, or the condylomatous stage begins. In this stage, as a rule the lesions are superficial and confined largely to the skin and mucous membrane, consisting of erythematous, papular and pustular rashes.

The duration of the secondary stage depends as much upon the diligence of the patient in taking and keeping up treatment as anything else. If the patient will take treatment carefully and systematically the disease will end with the secondary stage. The prognosis depends upon the diligence of the patient in taking and sticking to his treatment.

Young men and women bear this disease better than old men and women. It is very fortunate for the human race that this disease is found in the young and vigorous instead of the old and feeble.

This disease is not as severe as it was thirty years ago. It seems that it has been modified by time. Probably the previous infection of the human race has rendered it partially immune. There is no way by which we can judge of the initial lesions as to the severity of the disease. As a rule one attack of syphilis renders the individual immune to subsequent attacks. Propeta's law is that persons who in early life have been the subjects of inherited syphilis are not susceptible to acquired syphilis. Colle's law is that a healthy mother, who carries an embryo rendered syphilitic by its father, is herself not liable to acquired syphilis.

As to treatment of syphilis in the first period, I give nothing, only recommend cleanliness. After development of the chancre some one of the various dusting powders may be used, chief among them is iodoform, but this is objectionable on account of the odor which is a sure give-away. Next comes nosophen, and various other preparations. I never put my patient on antisymphilitic treatment until I am thoroughly convinced that he is suffering from syphilis, so I always wait for the secondary lesions to appear before beginning antisymphilitic treatment.

which is usually about six weeks after the development of the chancre. After the development of the secondary lesions, I usually begin with a 1-4 gr. mercury three times daily and increase slowly to the extent of toleration. I continue this treatment for six months. If any sign of mercurialism develops, the treatment may be left off for a few days, then continued. After six months a mixed treatment is begun. This is composed of biniodide of mercury and iodide of potassium in a menstruum of syr. sarsaparilla co. or syr. trifolium co. gradually increasing the iodide. After the beginning of the third year the mercury may be left off and the iodide of potassium continued in as large doses as the system will tolerate.

And now in closing I might say if the above line of treatment be adhered to that no tertiary lesions will ever develop. The other forms of treatment, such as fumigations, inunctions, etc., I have never tried.

ABORTION.*

By B. F. FYKE, M. D., Springfield, Tenn.

In proposing to read a paper before this society of medical men with wide clinical experiences on a subject so hackneyed and exhausted, I do so with a half apology for its commonplaceness, and more for the purpose of obtaining information than to give it.

Of all pathological conditions of women, I know none that is the source of more worry and anxiety to the physician than abortion; nor of any to which they date more of the pelvic troubles. In abortion, a life is lost on one side, and the life and health of the woman endangered on the other. Hence, in all cases of abortion, an early diagnosis and proper treatment should be our highest ambition.

I will not begin by saying that there is usually but little difficulty in making a diagnosis in abortion, for there *is*. When called to see a woman who menstruates irregularly, is subject to dysmenorrhea and menorrhagia, or has a lacerated cervix uteri with a displaced uterus, it is hard for me to diagnose an early abortion. If there are positive symptoms of pregnancy, oftentimes I can only say the symptoms *indicate* abortion. An attack of hemorrhage does not always mean abortion. A pregnant woman can have quite a severe hemorrhage and still not abort, if the blood does not come from the placental site of attachment of the ovum. Pain and hemorrhage make the symptoms more alarming, yet a pregnant woman can have severe pains and hemorrhage and still not abort.

But a rupture of the membranes with the escape of liquor amnii and death of the embryo means inevitable abortion. Pain and hemorrhage, watery discharges from the vagina, a feeling of general uneasiness in the pelvic region, a softened and dilated cervix with portions of membrane or ovum presenting in the os, mean inevitable abortion, and the sooner the womb is emptied the better for the woman.

When there is a dry and tender condition of the vagina and the uterus and adnexa are tender, and the woman is restless and excitable and has a rise of temperature some time in the day, *criminal abortion has been produced*.

When called to a woman who has passed two or three menstrual periods without menstruating and gives any of the symptoms of abortion, no physician is excusable for not making a thorough vaginal examination. If it ends well, all is well; if not, all is wrong. Never allow a woman to mislead you by accepting her opinion that the womb is empty, nor deceive her by telling her the womb is empty before you make a thorough examination.

The immediate dangers in abortion are hemorrhage and sepsis. While I have no record of a woman dying from post abortion hemorrhage, yet I have seen several in which death would have come if active surgical measures had not been used. I have seen several cases when sepsis did come. Septicemia may be general or confined to the pelvic region, when it usually terminates by resolution. Never mistake a case of septic arthritis following abortion for rheumatism or malaria.

The remote dangers of abortion are subinvolution, displacements, chronic inflammatory conditions of uterus and adnexa, and many reflex symptoms that are ever afterward a menace to the health of the woman.

The treatment of abortion is expectant and active. The expectant treatment should be tried as long as the symptoms are not alarming from hemorrhage or fetor. The expectant remedies are rest in bed, opium, chloral and the bromides. I have never seen any satisfactory results from the use of viburnum, etc. If all the symptoms grow worse under a rigid expectant treatment, we need no longer temporize, but should proceed at once with the active treatment. In this we use tampon, placenta forceps, dull and sharp curet, the finger and uterine irrigator. If the os is soft and dilated, with portions of membrane or the ovum presenting, it is a loss of time and hazardous to depend on the tampon. Cleanse the external parts with water, soap and creolin; irrigate the vagina with 1 per

* Read before the Southern Kentucky Medical Association, October 26, 1904.

cent to 2 per cent solution creolin, introduce a speculum, draw down the uterus with Valsella forceps, make an exploration with a dull curet, introduce a placenta forceps and remove the uterine contents. Continue the use of the dull curet until all debris is brought away: then irrigate with plain hot water and continue to use it until it returns clear and you can no longer remove any clots or shreds of decidua with the curet. In all abortions prior to the end of the third month the union between the membranes is so delicate that it oftentimes happens that the decidua serotina is retained, and is responsible for the ill after-effects of abortion; and no woman should be left until an effort has been made to thoroughly remove it. One of the most alarming cases of sapremia I ever saw resulted from the retention of a very small piece of this membrane.

I prefer the use of all the instruments named in treating abortion to that of the finger. They are easier sterilized, are less painful to the woman, if carefully used, and can be more thoroughly applied.

I do not use the sharp curet very often. The mucosa of a pregnant uterus is engorged, tumid and thickened and would be very easily cut into grooves and left in a very rough condition by the careless use of the sharp curet.

MALFORMATIONS OF THE ANUS; ENTIRE ABSENCE OF ANUS; EXHIBITION OF CASE SUCCESSFULLY OPERATED ON.*

By P. C. LAYNE, M. D., Ashland, Ky.

Malformations of the anus are comparatively rare, occurring in the proportion of about one case in ten thousand births. To have a clear understanding of anal and rectal deformities it will be necessary to study the early development of the foetus, but as time and space prevent going into details, I shall only outline, for the sake of clearness, the more important embryological changes which, in the normal state, result in the formation of anus and rectum.

The rectum, we are told, is developed out of structures derived from the hypoblastic and mesoblastic layers of the blastoderm, while the anus has its origin in elements springing from the epiblast. During the down growth of the rectum from above there is taking place an involution of the epiblast, which process continues until it meets with the rudimentary rectum, or hind gut. These involutional changes continue until the two

processes come in contact, the intervening septum has been absorbed, and the potency of the recto-anal canal has been established. Arrest of these involutional changes results in malformations of the rectum, the anus, or of both. Failure of development in one, however, is not necessarily associated with failure of the other, but in the majority of cases where one is defective the other is normal, and *vice versa*. Other deformities, such as cleft palate, naso-pharyngeal obstruction, urogenital malformations, pelvic narrowings and the like, are not uncommonly associated signs of degeneracy.

Complete absence of the anus is readily discovered on examining the new born babe, and this examination should never be omitted by the accoucheur at the time of birth. When the anus is completely absent there may be only a slight depression in the position where the normal anus should be, or there may be a nipple-like projection of the skin, or the surface may be perfectly smooth, the median raphe extending in an unbroken line from the scrotum to the coccyx. The rectum in these cases may open into some other viscus, be arrested high in the pelvis, or be in close proximity to the skin covering the anal region. The presence or absence of a depression in the region where the normal anus should be is no indication whatever of the distance at which the rectum will be found. As a rule those cases presenting well-formed ani are the very ones in which it may be expected to find the rectum high up in the pelvis or even in the abdominal cavity. On the other hand, where the anal region is perfectly smooth the rectum may be in close contact with the cutaneous coverings. "This fact," says Tuttle, "is of great practical importance, showing that the absence of the anus alone is no indication for an abdominal operation."

The symptoms of imperforate anus are those of intestinal obstruction, the causative nature of which is readily discovered on careful examination of the case. The prognosis if left to itself is death within four to eight days. Surgical intervention offers a fair prospect of success if resorted to early, the mortality from the perineal operation being slightly less than that from the abdominal route, which is placed at 52.3 per cent. by Anders, 46.6 per cent. by Curling, 68.4 per cent. by Cripps, and 43.7 per cent. by Tuttle.

For the relief of these malformations two methods of surgical procedure have been practiced, viz.: perineal incision, or so-called proctoplasty, and left inguinal colostomy. Whatever the operation of choice may be, it should be undertaken immediately after the discovery of the imperforation, as each hour's delay lessens the prospects of a successful out-

* Read at Sixteenth Quarterly Meeting of the Central Tri-State Medical Society, held at Catlettsburg, Ky., January 19, 1905.

come. Proctoplasty is the operation of election in cases seen early, and there should be no delay in undertaking it. "It is a difficult and, at times, impossible operation," says Tillman, "and it should only be undertaken by one thoroughly familiar with the surgical anatomy of the region involved." The area of operation is a small elliptical space bounded on either side by the tuber ischii, in front by the scrotum, and behind by the tip of coccyx. Its average transverse diameter in normal infants is about 5-8 to 3-4 in., and its greatest length 1.9-1.6 to 1.3-4 in. The distance from the anus to the tip of the coccyx is about 5-8 in., and from the tip of the coccyx to the sacral promontory 2.3-8 in.

The distance from the perineum to the lowest reflection of the peritoneum varies greatly, but on the average in the female is about 3-4 in., and 1 to 1.3-1.6 in. in males. In some cases where the rectum ends high up in the pelvis, the anterior peritoneal fold passes downward and backward in front of and beneath the blind extremity of the gut towards the coccyx, and will be opened by the first incision in the perineum, so that it is well to keep this anomaly in mind and be on the lookout for it, so that the serous pouch may suffer as little damage as possible. With these points clearly in mind the surgeon may begin his incision. No anaesthetic is necessary in these cases, as the sensitiveness of the new born to pain is very slight, and the shock from the anaesthetic is much greater than the value derived from its use.

The incision should be made *invariably* in the median line, and should commence at the point where the anterior margin of the normal anus should be, and be carried back to the tip of the coccyx. It should be gradually deepened until the rectum is found, or the wound has reached the depth of 2 to 2.3-4 in.; deeper than this it should not be carried. If at this depth the gut is not found, Tuttle recommends that the incision be carried upward and forward through the cellular tissue, and the peritoneum be opened up at once and careful search instituted for the missing bowel.

When the bowel has been found it should be, if possible, brought out through the perineal wound and opened, in order not to contaminate the wound surfaces with its contents, notwithstanding the fact that Welch has demonstrated that meconium contains no pathologic germs. After emptying the gut it is to be carefully sutured to the skin of the anal region, care being taken to include all the possible fibres of muscular tissue in the newly formed anus. It is advised by some operators that the suture should only penetrate the mucosa and submucosa of the rectum, but this is a piece of advice that is diffi-

cult and at times impossible to follow, as I think any one will discover on making a trial of it. Catgut or silk may be used for suturing; the former, if known to be of durable quality, is said to possess the advantage over silk of swelling and preventing leakage through the stitch holes, but often it has the decided disadvantage of being too rapidly absorbed, thereby allowing the gut to retreat into the pelvis before it has become firmly adherent to the anal tissues. Silk does away with the likelihood of this distressing accident, and, for that reason, if nothing more, is to be preferred to catgut. Silkworm gut should be used to close the remainder of the skin incision, in order that the healing process may be shortened as much as possible.

The second method of dealing with imperforate anus, viz., colostomy, has a very restricted field of usefulness, and should only be resorted to in those cases where, for various causes, the rectum is too short to be brought down and attached in the anal region. As a life-saving measure it should always be employed by the surgeon in those cases seen too late to do the more radical perineal operation, and where the child is suffering from exhaustion consequent upon the fecal obstruction. In this instance the operation may save a life that must otherwise perish, and the infant may grow to full maturity and reach old age without suffering any great inconvenience from the artificial anus.

Again, one or two recorded instances show that after inguinal colostomy the blind end of the gut has continued to develop downward, so that it could be easily attached at the perineum, in which case the inguinal anus quickly closes, allowing the fecal current to pass off through its natural outlet.

The after treatment of these cases requires the judicious employment of gradual dilatation by means of Wales bougies to maintain the potency of the anal canal, the size of which in the normal new born should readily admit the little finger of the left hand.

Before closing it may be of interest to state that the first proctoplasty ever done in America was performed by Dr. John Campbell, of Flemingsburg, Kentucky, in the year 1787.

CROUPOUS PNEUMONIA—PATHOLOGY, ETIOLOGY, SYMPTOMS.*

By J. L. MILLER, M. D., Ashland, Ky.

I have tried to cover the salient points of this extensive subject in the briefest possible form, and yet I fear my paper may become tiresome before it is finished.

Hare says, "Pneumonia is a term loosely

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applied to two very different forms of disease, namely, 1. That acute infectious process due to an infection by the micrococcus lanceolatus and called croupous pneumonia; 2. That form following as a rule some other disease which has exhausted the patient's strength and due in some cases to various forms of infection, and called catarrhal pneumonia." As an example of the latter I will mention a case, reported in May 1903, in a German Journal, by Bressel, of gonorrhoeal pneumonia in a man aged thirty-two years, who had had a specific urethritis for some weeks. He observed the usual symptoms and signs of pneumonia, but the blood and sputa contained the gonococcus instead of the usual diplococcus. Identity was verified by culture. Recovery occurred after some weeks.

I shall present only the first form, croupous or lobar pneumonia, which may be defined as an acute, infectious disease caused by the micrococcus lanceolatus of Frankel, which produces a specific inflammation of the parenchyma of the lung, with marked constitutional disturbance, chill and extreme prostration and fever, which terminates the crisis.

PATHOLOGY. Usually the lesions are confined to the whole of one lobe; less frequently to one entire lung; rarely to parts of both lungs. Jürgeson's analysis of 6666 cases shows the area involved as follows:

Right lung 54 per cent; left lung 38 per cent.; both lungs 8 per cent. Lobes: Right lower, 23 per cent.; left lower, 22 per cent.; right middle lobe, 2 per cent.; right upper, 12 per cent.; left upper, 7 per cent.; whole lung about 8 per cent.

Pathologists recognize three stages: 1. Congestion, or engorgement; 2. Red hepatization, or consolidation; 3. Gray hepatization, or stage of discoloration and fatty degeneration, which is usually regarded as the beginning of resolution.

1. *Stage of Engorgement.* When the chest is opened the involved portion does not collapse as rapidly and freely as does the other parts of the lungs, and frequently the general contour is retained. The affected part is dark red, firmer to the feel, less resilient and crepitant, and floats lower in water than normal lung tissue. On section, the color is uniform, and a blood stained, foamy serum bathes the cut surface. Microscopically, the capillaries of the vesicle walls are found tortuous, and greatly distended, the vesicular epithelium desquamating, mixed with which are noticed some red blood corpuscles and leucocytes. This stage usually lasts but a few hours, and death rarely occurs at this time, except after great exposure or alcoholic debauch, etc.

Dr. Coplin, of Jefferson, says he has in

such cases made post mortems after the most experienced clinicians had a few moments before death outlined what seemed to be the area of consolidation, and in a large number of instances he found the area of solidification far beyond the ante-mortem outlines.

2. *Red Hepatization.* When the distended capillaries unload the inflammatory exudate into the air vesicle, we have the stage of consolidation, or red hepatization. As the name indicates the affected part is dark red, airless, indicates, the affected part is dark red, airless-umous and may be marked by the ribs. On section, it is dry, rough, granular, giving the impression not unlike that of passing the finger over pounded glass, very friable, sinks in water, and will break rather than bend. Microscopically, the blood vessels show less distention, and the air vesicle is seen filled with clotted fibrin, in the meshes of which are caught red blood corpuscles, leucocytes, epithelial cells, the diplococcus and sometimes pus cells and other bacteria. This stage may last but three days, but in one case Coplin found the affected lobe still red and solid thirty-nine days after the initial chill, and thirty-seven days after the clinical diagnosis of solidification.

3. *Gray Hepatization.* Following the stage of red hepatization, the inflammatory exudate undergoes fatty and granular degeneration, being converted into a greyish-white emulsion, more favorable for absorption and expectoration. On examination, the lung affected is found a yellowish or reddish gray, softer and more easily torn, moist on section, with rather a free flow on pressure of the emulsified contents of the air vesicles. With this stage we have beginning resolution.

ETIOLOGY. The generally accepted cause of croupous pneumonia is the micrococcus lanceolatus of Frankel—a lance-shaped coccus united in pairs, which can be demonstrated in fifty to seventy-five per cent. of all cases of croupous pneumonia. In thirty to forty per cent. of fatal cases the coccus of supuration is found also. In his investigations Netter found the pneumococcus in twenty per cent. of the buccal secretions of well persons, which he examined. To show the value of thorough disinfection of the sputa of pneumonia patients Bardoni found that pneumonic sputum which had become inspissated from exposure to diffuse daylight for a period of from nineteen to fifty-five days, retained the property of producing a typical septicaemia when injected into animals. Exposure to direct sunlight for twelve hours lessened its influence but did not destroy it.

Predisposing Causes; Epidemics. Pneumonia frequently appears in epidemic form, rapidly spreading over the entire community,

or throughout a prison or barracks, where a large number of persons are closely confined. At Saratoga in 1902, Dr. Cunningham, of Alabama, reported a series of epidemics in the past fifteen years in a prison population of six hundred under his charge. W. B. Rodman reported an epidemic of one hundred and eighteen cases with twenty-five deaths in a prison population of seven hundred and thirty-five. Anders reports a case of house epidemic, where three cases developed in rapid succession and a Sister of Charity, after nursing two of them for ten days, was attacked and died. Zimmerman also reports a similar case where a father and three children were all stricken, with an interval of but one or two days between the onset in the various cases.

Geographic Distribution. Pneumonia is almost universally distributed, though more prevalent in some countries than in others, and in some sections of the same country than in others. Thus Delafield points out that the disease is more frequent in the South than in the North of this country.

Season. About seventy per-cent. of cases appear in the winter and spring; the period of maximum frequency in this climate is from February to May. "Catching cold" and bronchitis produced by the dust, etc., of certain occupations, which are supposed to render the respiratory mucosa more susceptible to infection, it is claimed, are very frequently followed by pneumonia. In four years' coal mine practice in West Virginia, I failed to notice this undue frequency. Almost every one of the sixteen hundred men employed had miner's bronchitis, and acute colds were quite common, as a large number of them had to walk from the mines to their homes, a mile or more, in the bitterest sort of weather with no other clothing than their mine suits which often were wet to the waist, and yet but few of our cases of pneumonia gave any history of previous cold.

Age. While pneumonia is common to all periods of life there are three periods of greater frequency. First, before two years of age; Second, from twenty to forty; Third, after sixty.

Sex. No difference where exposure is the same.

Unhygienic Surroundings. The lower classes have it more frequently than those in more hygienic surroundings. Chronic diseases, such as nephritis, diabetes, chronic heart disease, alcoholism, etc., by lowering the vitality, rendering the individual more susceptible to infection. But contrary to other acute infectious diseases, susceptibility is not so great among emigrants as among natives and older residents.

Prior Attacks. One attack predisposes to another. Loomis reports one case where twenty-eight attacks had been observed in the same individual.

CLINICAL HISTORY. Prodromes are rare; when present they consist of a mild cough, thoracic oppression and slight chest pains. The onset is usually abrupt, and marked by severe chill, lasting half an hour, or longer, followed by a rapid rise in temperature to 104 degrees or higher. Loomis says distinct chill is absent in about fifty per cent. of cases in old persons; that when absent the onset is attended by irregularity and slight increase in frequency of respirations, slight pyrexia, short hacking cough and a feeling of great exhaustion. The only post mortem examination I ever made after pneumonia was in a case presenting just such symptoms as Loomis mentions. The patient was seventy-six years old and died after three days' illness. One of the most expert diagnosticians in that section of West Virginia had failed to find any physical signs of pneumonia, and yet we found at autopsy the right lower lobe solid.

Accompanying the chill and rise of temperature, the skin becomes dry and harsh, face is flushed and frequently shows a mahogany colored spot on the cheek of the affected side; respiration becomes hurried and shallower; pulse quickened; cough ringing and dry, and there is a sharp stabbing pain in the affected side, which is made worse by deep inspiration and coughing. This pain is lessened by the patient lying on the affected side, which he does unconsciously. There may be vomiting, and constipation is usually present, also excessive thirst.

Leading Symptoms in Detail. Increase in respiration in adults is from forty to sixty, which changes the normal pulse-respiration ratio of 1:4 to about 1:2. Both inspiration and expiration are brief and shallower in character. Expiration is frequently accompanied by an audible grunt. I have noticed more frequently a panting than a grunting respiration. Sputa is at first scanty, mucoid, frothy. Later becomes more abundant and mixed with blood, which gives it the characteristic rusty color. Sometimes it is very thin and contains a large admixture of blood, which is known as prune juice sputa, and considered a bad sign by most clinicians. One of the chief characteristics of pneumonic sputa is its viscosity and great tenacity. Pain is an early symptom. It is stabbing in character and usually referred to near the nipples or axilla, and generally disappears after two or three days. The fever in first ten to twelve days may rise to 104 degrees or 105 degrees. It pursues the continued type with nocturnal remissions of

one or two degrees, until the crisis comes, generally on the seventh or ninth day. The temperature usually has a lower range in old age, in drunkards and persons previously debilitated. When it drops to normal at the crisis there is usually a copious sweat. The average pulse rate is 90 to 108. Anders says that when it exceeds 120 there is just cause for alarm, as it is a certain indication of failure of heart power. At first the pulse is full and bounding, but after extensive consolidation it may become soft and small on account of less blood reaching the left ventricle and systemic circulation. Most writers emphasize the fact that in pneumonia much depends upon the strength of the right ventricle. The strength is indicated by the pulmonary second sound, which in favorable cases is clear and accentuated by reason of the increased tension of the pulmonary vessels. With failure of the right ventricle there are the signs of dilatation, indistinctness of the pulmonary second sound, extension of heart dullness to the right, low systolic murmur, and signs of venous stasis. Headache occurs early, is prominent and persistent. Delirium not infrequent. Delirium tremens frequent in old alcoholic cases; often it precedes the thoracic symptoms. Osler says it should be an invariable rule, when called to a case of delirium tremens in which fever is present, to examine the lungs. Urinalysis shows diminished quantity of high colored urine containing an excessive amount of urea and uric acid, and frequently a small amount of albumen and absence of the chlorides.

PHYSICAL SIGNS. Inspection. First Stage. Deficient expansion movements of the affected side.

Second Stage. Little or no expansion of affected side, while that of the other side is increased. In double pneumonia of the lower lobes there is no protusion of the epigastrium and the costal breathing is exaggerated.

Palpation. First Stage. There may be slight increase in tactile fremitus over congested area.

Second Stage. Fremitus much increased, but if pleurisy with effusion be present, this may be diminished or absent.

Percussion. First Stage. The note may be normal, but is frequently higher pitched and tympanitic.

Second Stage. Usually marked or absolute dullness posteriorly, while in front the note is more tympanitic.

Auscultation. First Stage. The breath sounds are weaker on the affected side and exaggerated somewhat over the unaffected portions of the lungs. If there is more or less inflammation of the smaller bronchi, there

may be subcrepitant rales present.

Second Stage. Unless the larger bronchi are plugged with exudate there is a harsh, high pitched bronchial respiration, often resembling a to-and-fro metallic sound; usually there is transmitted voice or bronchophony, quite distinct over the affected area, and at the beginning of consolidation, crepitant or crackling rales at the end of respiration.

Third Stage. With the beginning of gray hepatization the expansile movements gradually increases, fremitus diminishes, while the breathing changes from bronchial to bronchovesicular, sub-crepitant rales return, associated with large and small moist and bubbling rales.

FRACTURE OF INFERIOR MAXILLARY: REPORT OF THREE INTERESTING CASES.*

By D. C. BOWEN, M. D., Nolin, Ky.

From the experience in the three cases reported in last part of this paper, the essayist has come to the conclusion, (perhaps hastily) that the time honored surgical procedures, such as drilling and wiring the fragments together, and the interdental splint such as requires the aid of a dental surgeon, may be dispensed with in fractures of the inferior maxillary.

* Fracture of the lower jaw, is much more common than that of the upper and may be of the body, the ramus, the condyle, or the coracoid process.

The body is usually fractured in the median line, sometimes on the side. The ramus is slightly if at all displaced when fractured. In fracture of the condyle the process is usually drawn forward onto the eminentia articularis, the lower fragment slipping up into the glenoid cavity, causing the entire maxillary to deviate towards the injured side. The coracoid process is scarcely ever fractured unless in connection with the zygoma, the condyle, or the molar bone. The diagnosis is usually easy, and with any degree of precaution on the part of the examining surgeon we cannot conceive of the possibility of a mistake in diagnosing injuries of this kind.

The treatment resolves itself into cleansing the jaw inside and out, reducing fracture or fractures, and keeping them reduced by one of the many mechanical devices, such as Hamilton's apparatus, the four tail bandage, the figure of eight chin and head bandage which may be reinforced by the wet pasteboard, molded to chin and jaws, the leather or gutta-percha chin cap, the wiring of the fragments of bone or teeth, interdental splint, the wedges of cork cut into suitable shape, Mutter's silver clamps, or their modification by

* Read before the Muldrough Hill Medical Society, in Louisville, April 18, 1905.

Tomes, Hayward's silver caps and other more complicated apparatus, all of these may in our judgment (exceptions being very few if any) be superseded by the modeling composition cast of lower jaw, the interdental splints of same material, over which a four-tail bandage is firmly applied.

The modeling compound may be purchased at any dental supply store at a nominal sum, or if the surgeon is in the country, he may secure some from any modern dentist. Modeling composition, or compound, is composed of gum dammar, stearine, French chalk, with carmine to color it, and perfume to render it pleasant. The best manner in using it, is to soften this material in boiling water, contained in a basin. When it is thoroughly softened and not too hot to handle, it may be shaped into an oblong mass three and a half inches by seven inches, and about one-fourth inch thick. This is molded while soft and warm to the jaw making a complete cast of maxilla; hardening may be facilitated by applying cloths wrung out of ice water. The interdental splints are made out of same material, cut about one and a half inches in length from one-fourth to one-half inches in width and one-fourth inch in thickness. The material is softened in same manner and is inserted between the teeth on either side, the crowns of same being pressed into the compound by the dressing until only sufficient space is left between incisors to allow nourishing by liquid foods. These interdental splints are adapted by pressing on them with the fingers against labial surfaces of teeth.

The advantages of the modeling compound are that it can be molded to make a perfect cast, that it is much easier handled by the amateur surgeon than wax or gutta-percha, and that it is easily softened, and may be reshaped to conform to parts after swelling has subsided without removing cast, and at the same time without impairing the usefulness of splint, as the number of times the modeling composition is softened as described does not tend to destroy the hardening property.

The following report of three interesting cases may better illustrate the use of this compound:

CASE I. Mrs. E. I., Dr. widow age 67, weight about 100 pounds, never had any severe illness nor injury, but has been a delicate lady of untiring energy. On Nov. 5th, 1901, while putting an oleander, which was planted in a candy bucket, into cellar, lost her balance when one-third down stair-way, fell headlong, landing on the left side of chin on concrete floor. Received contusion of the left mental and temporal regions. The right body of inferior maxilla was fractured about one and three-fourth inches from symphysis

menti. The left body maxilla was obliquely fractured in front of and near mental foramen; the left condyle was fractured through neck, the process drawn forward on to the enunentia articularis, the lower fragment driven into glenoid cavity, the tissues adjacent to breaks were intact, but bruised.

The alveolar processes were absorbed, which was due to the loss of all the teeth forty years ago, leaving the bone in an extreme senile condition. The artificial teeth and plates were uninjured by the fall. After removing two front blocks of teeth from both upper and lower plates, to give feeding space, several unsuccessful attempts were made to reduce dislocated process. Could not reduce the fractures easily enough but as soon as released one side or the other would fly apart; after repeated efforts of this kind, without an anaesthetic, patient begged that we let her die without further pain. We now gave chloroform and by extension and counter pressure, succeeded in reducing the dislocated and fractured condyle. We first tied the upper and lower artificial plates together by placing hot soft modeling compound on either side for an inch and a half; by pressing the teeth together and molding compound inside and out, we had a perfect interdental splint, that fulfilled all requirements, but on attempting to introduce both sets tied in this way it was found impossible, on account of fragments slipping when mouth was opened sufficiently to admit of plates. We now introduced the lower plate first, and then the upper, and by carefully pulling the lower jaw down we were able to insert on either side modeling compound enough to prevent any grinding or lateral motion; the modeling composition was now applied to inferior maxillary, extending well up and over zygomatic arch on both sides and passing back and beneath angle of body with ramus, hugging the posterior edges of ramus up to and beneath lobules of ears; over this was applied the four tail bandage.

You will notice the modeling splint that was used in this case, which I pass around, that it has been reshaped and that the temporal portion has been removed; this was done without disturbing the fractures in the least, by cutting with a hot knife, and applying cloths wrung out of hot water. This cast was worn for six weeks; there was no irritation whatever. The mouth was washed with glyco-thymoline frequently.

The usual light liquid diet was given, semi-solids allowed at the end of sixth week, solids taken at the end of eighth week; recovery was complete with no deformity whatever.

CASE II. W. P. H., farmer and runs threshing machine, age 42, weight 210 pounds, height

5 feet 9 inches, family history good. On November 7, 1901, while attempting to hold team by road side to allow traction engine to pull up by the side of water wagon to take water, one of the horses became frightened and plunged forward, kicking with both feet; one foot struck him on the chin and to the right, producing cut that extended through lip and to the left of symphysis menti, and obliquely downwards to within one-half inch and below angle of right ramus. The left front and two right incisors and first bicuspid of lower jaw were uprooted backwards into the mouth, the crown was broken off of second upper right incisor, the upper second molar was knocked out by the roots, a triangular cut extended from the right side of the lips for an inch, and there was a compound comminuted fracture of the body of the right inferior maxillary. The hemorrhage was profuse and he lay in an unconscious state, which was due to the concussion, from time injury was received, until a messenger came to my office, a distance of one mile, on foot. I got together dressings, hooked up horse and drove to the place of accident, examined, gave hypo. of morphia and atropia, put on temporary dressing and got patient in buggy, when he commenced to show signs of returning consciousness. On arriving at his home, a mile distant, we cleansed wounds, removed three spicula of bone, replaced the four teeth which were knocked back into mouth, put in seven interrupted sutures in cut over jaw, four in the triangular wound at corner of mouth, reduced fracture and molded the modeling compound over maxilla from ear to ear, hastening hardening by applying ice cloths; I then removed cast, made aperture over the seat of fracture for the purpose of inspecting and cleaning wound, made a hole in front of each ear through which was passed a tape, also made an opening at posterior angle of splint and back of each ear for same purpose. We now reapplied cast, introduced the interdental splints as in case one; except that the teeth were left far enough apart to allow feeding between the incisors. The posterior tapes were brought behind ears crossing at occipital protuberance, extending around and being pinned in median line of forehead; the anterior tapes were brought up in front of ears, and pinned where they met on crown; the posterior tapes were brought directly back to meet the anterior ones from crown and pinned. This was done to hold splint firmly on removing the bandage to dress the wound; after each subsequent dressing the four tail bandage was reapplied. The wound was dressed daily until the tenth day, when injury had been repaired sufficiently to allow nurse to cleanse same. Dressing was removed the

twenty-eighth day, semisolids were given at this time, solids allowed the forty-second day; results perfect.

CASE III. W. H., farmer, age 20, weight 165 pounds, height 5 feet 9 inches, no serious illness nor injury, always in good health, but a number of his brothers and sisters died of tuberculosis.

While out driving November 7, 1903, upset buggy and was thrown against fence, receiving severe contusion on right cheek and forehead; the left ear was cut almost half off, the right lower canine was uprooted, the body of maxilla was fractured transversely at this point, the gums and mucous membrane were completely torn into and were bleeding profusely; the left body of jaw was obliquely fractured near the angle with ramus.

Treatment consisted of replacing tooth to normal position and anchoring same by wiring second incisor to first bicuspid, by double figure of 8, around the injured tooth.

After the fractures of each side had been reduced, we placed the interdental splint on either side as in case 2. The modeling composition was molded to maxilla as in case 1, the four tail bandage was applied over this. Dressing remained on for seven days, when it was taken off to remove the wire from the teeth and to extract the injured tooth, as it was causing trouble; the cast was readjusted and bandaged as before.

Wound was cleansed with 50 per cent. hydrogen peroxide solution once daily till all fetor and pus had disappeared; the mouth was rinsed frequently with listerine. Nourished as the two preceding cases. Dressing removed the twenty-first day, wound healed perfectly. The right side of jaw was a little prominent at this time, which was due to exudate, cicatricial tissue and callus. Semisolids allowed the twenty-first day, solids taken the twenty-eighth day. Recovery without deformity and seat of injury could not be detected without a critical examination.

The results obtained in these cases, especially in case 1, are certainly beyond all expectation. Two such extreme cases as 1 and 2 coming so close together, and with such results, by the use of the modeling composition interdental splints and cast, aided by the four tail bandage, are my apology for presenting this paper.

POST PARTUM HEMORRHAGE.*

By ARTHUR T. MCCORMACK, M. A., M. D., Bowling Green, Ky.

I am very happy that the only discussion I can present to this society from personal experience on the very interesting subject of post partum hemorrhage is in regard to the

*Read before the Muldraugh Hill Medical Society, in Louisville, April 13, 1905.

prevention of the condition. As soon as a child is born it should be turned over to a grandmother or nurse and the obstetrician's hand should maintain a firm pressure over the contracted uterus. If the placenta is expelled by natural pain within a reasonable time, say fifteen minutes, so much the better, but, if not, or if the hemorrhage be too great, it should be expressed by the excellent method of Crede. It is frequently of service to guide it by a gentle but firm traction on the cord. Upon its expression it should be gently rotated in one hand, the other keeping up a firm pressure over the fundus. This rotation should be continued until the membranes come away freely of themselves. The hand of either the accoucheur or of the trained assistant should be kept in control of the uterus for at least an hour. A little gentle kneading with the fingers will usually check any tendency to relaxation, but sometimes it requires pretty active, at times even painful, manipulation to do this. If he sees the slightest tendency to lose control of the muscular contraction of this organ, the vaginal douche at 116 degrees F. will usually bring about the contraction. If this fails the intra-uterine douche at same temperature, or even at 120 degrees F., should be used at once. In these rare cases where this procedure does not avail, the douche bag or fountain syringe should be filled with a two per cent solution of acetic acid at a temperature of 120 degrees F., or, in case of emergency this douche may consist of equal parts of clean apple vinegar and water at the same temperature. This is invaluable, in my experience, to produce the firm contraction desired, and it has been necessary to resort to this last procedure in only four or five cases.

In every case the placenta should be examined as soon as expressed, and torn parts fitted together to see if any small portion of it is left behind. This is no more important in the prevention of post partum hemorrhage, than it is to prevent septic infection.

I usually employ ergot by a hypodermatic injection as a routine measure. I am unable to say that I have ever seen it do either good or harm.

It may be of interest, in conclusion, that in my practice it has been necessary for me to use the vaginal douche in about one case in each sixteen; the intra-uterine douche of plain water in one case in about sixty-five; and the acidulated douche in an average of about one case in one hundred and fifty.

I hope I shall never see one of these alarming cases, but I always endeavor to have two or three of Ellwood Lee's sterilized towels at hand if tamponage should be necessary. I believe, however, that these simpler and less

dangerous methods, if properly and fearlessly carried out, will control the condition in practically every case before it reaches the stage where it can be properly called post-partum hemorrhage.

Bowling Green, Ky., April 11, 1905.

TYPHOID FEVER; REPORT OF A CASE.*

By T. H. GARVIN, Ex-President Southern Kentucky Medical Association.

On October 8, 1904, I was called to see Mrs. V., age 33, the mother of three living children and two "still born," the oldest ten years, the youngest 4 months. Family history not good, the mother and two brothers having died of tuberculosis. She had been ill ten days, was in the hands of another doctor who had diagnosed the case as one of malarial origin. I found her with a temperature of 104 1-2, pulse 100, respiration 26. Bowels loose, three or four actions daily. Rose colored spots scattered over abdomen; considerably tympanitis, scanty urine. Tenderness of the spleen and over the right lower bowels. No appetite, dry mouth, very red angry-looking tongue, and very nervous. The case was placed in my hands. I at once called for a No. 1 trained nurse, which I got the next day, Oct. 9. I at once put this patient on small and oft repeated doses of calomel—about 1-20 grain every two hours, till I got the effects that I wished. Then I gave her salol and subnitrate bismuth every four hours. Had turpentine stupes applied as hot as could be borne. This treatment was followed for ten days with cold sponge baths whenever the temperature would go above 101, with liquid diet. The patient was getting along nicely, the evening temperature not going over 103 and the bowels moving not over twice daily. Tongue was much softer; in fact, everything seemed as favorable as could be hoped for, it being the 20th day of the fever. On the night of the 21st day of the fever there was a sudden drop in temperature down to 99. Of course this meant a hemorrhage, and it came and was a severe one. She lost a large quantity of blood with many large clots. I immediately had the foot of the bed elevated, gave her turpentine emulsion, fifteen drops of the oil of turpentine, applied hot stupes to abdomen as hot as could be borne until bowels became so tender she could not bear them, and the stomach revolted at the taste of the turpentine, and still some show of the hemorrhage continued. The temperature of the 23rd day of the fever again went up to 104. I then had applied the ice-bag and kept it on

* Read before Hart County Medical Society, Murfreesville, April 21, 1905.

until she felt too chilly when I would change to hot water bags as hot as she could bear them. Then on the 26th day of the fever the temperature dropped again to normal, and then another fearful hemorrhage came with the passing of large clots until she was pulseless at the wrist. The stomach revolted at the opium and acetate of lead, and acetic acid and the oil of turpentine also. By keeping the foot of the bed well elevated and alternating with hot water and ice bags and some little nourishment, I kept her through the night of the 26th day, watching closely the temperature and pulse which ran up to 140. She was so weak that she could hardly speak above a whisper. I gave her small doses of whisky and hypodermics of strichnia every three hours for twenty-four hours, and five drops of adrenalin chloride sol .001 ever two hours for sixty hours. Pulse came down to 115, temperature 102. I kept the temperature down by bathing with alcohol in hot water. It seemingly gave the best results in keeping down temperature, and to some extent sustaining her. On the 29th day of the fever I gave an enema of the normal saline solution, washing out the bowels thoroughly with soft rectal tube; after solution passed used listerine 1 to 40. She felt much better, took egg-nog and had a good nap. She slept two hours, awoke feeling comfortable. I then had her rubbed with cocoanut oil twice daily, gave her chicken broth alternating with buttermilk and egg-nog. Had no more hemorrhages. On the 29th day we lowered the foot of the bed, to her great relief. She expressed herself as glad that she did not have to stand on her head any longer. The temperature gradually went down until, by the 36th day of the fever, she had a normal temperature.

Now what was it that stayed the hemorrhage, the oil of turpentine, or the lead and opium, or the hot or cold applications, or the adrenalin solution? I feel that it was mostly due to the adrenalin, as everything took a turn for the better as soon as it was used. Of course, the other methods played their parts, but I feel sure that the adrenalin was the one thing that checked and stayed the bleeding, which was certainly fearful.

But I wish to say that the main ally that I had was one of the very best trained nurses. I wish to say in behalf of the noble trained nurses that are available to us doctors, that no one knows her value until he sees her tried—always patient and kind, carrying out your directions to a letter.

REPORT OF SEVEN CASES OF INTES- TINAL OBSTRUCTION.

By F. W. OWEN, M. D., Irvine, Ky.

CASE I. In 1883, in the city of Detroit, a child aged five years, while playing with other children, in the street, was set upon, roughly shaken and it was alleged, kicked in the abdomen by a teamster whose ire had been roused by some childish pranks of the children. The child was assisted to his home apparently more frightened than hurt. Within three or four days he was taken suddenly and violently ill. Complained of intense pain in the abdomen, succeeded by a chill which was followed by high temperature and later nausea and uncontrollable vomiting. A physician was called who made a very guarded diagnosis; the vomiting continued and on the second or third day became stercoraceous. The diagnosis was now adjusted to fit the conditions and the case pronounced to be one of intestinal obstruction. An operation was advised after consultation with two of the most noted surgeons of Detroit, but was refused by the parents of the little sufferer. Death occurred on the sixth day. The attending physician refusing to certify to the cause of death, the Coroner took charge of the case and ordered an autopsy, which I performed. When the abdomen was opened the peritoneal surfaces were found highly injected and bathed in considerable quantity of pale fluid mixed with whitish flecks of purulent matter. A considerable tumor was found to occupy the lower portion of the jejunum. The tumor when closely examined proved to be intussusception. The telescoped portion was about six inches in length and the lumen of the bowel at that point entirely obstructed. Efforts to straighten out the gut were attempted but the adhesions between the opposed serious surfaces were so firm as to render such procedure practically impossible.

The invagination in this case followed the usual course i. e., the upper section of the gut was received into the lower section. From the post mortem conditions present in the case it is my opinion that had it been operated upon not later than the third day, the invaginated portion could have been withdrawn readily and with good prospects of recovery. But operating later would have meant resection of at least twelve and possibly eighteen inches of intestine—with results, in presence of the peritoneal involvement, very doubtful.

The alleged assailant was arrested under a charge of manslaughter but was found guilty only of assault, the alleged kicking not being proven. Query: If this child received no violence in the abdominal region, what

caused the condition disclosed by the autopsy?

CASE II. A child, male, between four and five years old was seized with an attack of what was diagnosed as "colic." The mother stated that the boy had eaten a considerable quantity of blackberries one afternoon, had later eaten his usual supper and about midnight awoke with quite severe cramps, as she expressed it, vomited once or twice, seemed somewhat relieved, but about daylight pain of a spasmodic character was again experienced. A quack doctor in the neighborhood was called in and morphia was administered in repeated doses for nearly three days, when a regular practitioner was called. At this time there was no symptoms of intestinal obstruction, the bowels had moved one or twice, the abdomen was tympanitic and some slight elevation of temperature was noted. A mild cathartic was ordered which was to be repeated at stated intervals if required, and after other general directions the doctor departed agreeing to call next day. The second visit found the patient still in pain, higher pulse rate and increased temperature—no action of the bowels but persisting vomiting, the last of which was stercoraceous.

A consultation was asked and obtained, and the diagnosis was obstruction, cause not given; the parents refused operative interference and the child died about the middle of the second week. The consent of the parents having been obtained, I made a post mortem examination and found a complete obstruction of the ileum near its juncture with the jejunum, caused by volvulus. The intestine was twisted upon itself and fixed in this position by adhesive deposits, inflammatory in character and evidently of very recent origin. There were no marked pathological changes in any other portion of the intestines or in any of the abdominal organs. Below the volvulus the remaining portion of the small intestine was found empty and collapsed, as was the colon. Above the constriction was found considerable quantities of fluid, yellowish, foul-smelling, fecal in character. Here was a case when a life was sacrificed by the ignorance of the quack, who first saw it, and later by the obstinacy of ignorant parents.

CASE III. A physician, aged 50, residence Detroit, had been in active practice for many years, in fact had attended his duties much as usual until some two weeks prior to his death. Dr. R., had not complained of any severe symptoms to any of his friends and seemed in appearance, at least, to be a man in ordinary health. His last illness, however, was marked by some abdominal pain and in the last few days obstinate vomiting. Everything swallowed was returned either promptly or after an interval of quiescence.

Several physicians, members of his local society (the Wayne County Medical Society) visited him and to one and all his case was an enigma. But all agreed that the intestinal canal was obstructed, probably at the pyloric orifice or in the duodenum above the opening of the bile duct; death finally ensued from exhaustion. A few days prior thereto he requested that an autopsy be held that the exact cause of his trouble might be learned, and that some benefit might accrue to the surviving brethren of his beloved medical society.

I was requested to conduct the autopsy in the presence of the members of the society. Only the abdominal contents were investigated. The entire pyloric end of the stomach and all that portion of the duodenum above the common duct, with the head of the pancreas, were involved in a mass of cancerous growth, as was proven by subsequent microscopic examination, and of the encephaloid variety. The pyloric orifice and that portion of the duodenum affected were found imperious even to a brier probe. The mucous surface was pale but unbroken, the pyloric end of the stomach and duodenal walls were greatly thickened and very friable, so much so that in removing the diseased parts for further examination the mass was ruptured in many places. The salient features of this case were, first the absence of the usual indications of cancer, such as pain, hemorrhagic vomit, etc. Second, the rapid closure of the canal. The rapid closure seems proven by the fact that the body was not emaciated, but on the contrary was plump and in good condition. And the additional fact that the gastric function had been fairly well performed up to the time of his last illness.

CASE IV. Mr. K., German by birth. Resident of Wayne county, Mich., age 75. When first examined found the following symptoms—pain and some difficulty in deglutition, periodic vomiting at irregular intervals. Sometimes food, water and medicine would be retained for several days, digestion and assimilation being apparently good; then would follow periods when everything was vomited. No special pain or tenderness over the abdomen or elsewhere. The vomited matter consisted of the substances swallowed, mixed with greenish mucous and occasionally biliary matter. No blood or other matter of pathologic character could be detected after repeated microscopic inspection of the matter vomited. Diagnosis not given out for publication. The patient was thin, in fact little more than skin and bones; and after some six weeks of inefficient medication the patient died of inanition. Two days after death I was requested to make an autopsy to determine the true cause of death, complaint having been

made that one of the old man's sons had severely beaten him some months before. The brain and the thoracic viscera were found normal; the spleen, kidneys, urinary bladder, large and small intestines and liver showed no signs of pathologic change. The stomach was then removed together with the thoracic portion of the oesophagus and about two feet of the intestine, including the duodenum. Superficial examination disclosed the following conditions: the cardiac end of the stomach, including about two inches of the oesophagus, was much thickened and leathery to the touch, greyish white in appearance, the abnormal area being funnel shaped, spreading out and embracing the cardiac end for 2 1-2 to 3 inches, the oesophagus forming the stem of the funnel. The cardiac orifice was much narrowed though still patulous. Nothing unusual was observed as to the external appearance of the remaining portion of the stomach. Palpation of the pyloric end gave to the finger the impression of a movable tumor. When opened a fibroid tumor of the size of a small pear was found, attached by a narrow pedicle to the posterior wall of the stomach close to the pyloric orifice. This fibroid when turned towards the outlet completely blocked the pylorus, much in the manner of a ball valve. The erratic vomiting was easily explained; the pedicle of this tumor was about one inch in length giving considerable latitude of motion to its bulbous extremity.

CASE V. An unmarried woman, aged forty, of good physique, had been treated for two years by several physicians for dyspepsia, constipation, etc. The case was marked by no very prominent symptoms until about six weeks prior to her death, when pains were experienced in the abdomen, in the umbilical region, quite severe at times with intervals of ease. Palpation of the abdomen, which was full and fleshy, disclosed nothing save some slight tenderness in the region of the spleen; there was no great exhaustion, bowels responded in a satisfactory manner to moderate doses of mild cathartics; no blood or other abnormal matter in the discharge; no vomiting to speak of; urine normal in every way; liver apparently sound; no history of tuberculosis or cancer in her family was obtainable; appetite capricious; heart and lungs sound. The marked feature was the gradually increasing difficulty in moving the bowels—ending at the beginning of the second week before death, in complete obstruction. After this took place the abdomen became very much disturbed and tympanitic; the physician in attendance called for a consultation and the diagnosis of obstruction of the small intestine was made. Consent hav-

ing been obtained I was asked to perform the autopsy. The small intestines were filled with a considerable quantity of fluid matter and a large amount of gas, but were otherwise normal; the ileocecal valve, appendix and cecum were normal; the latter, however, was filled with hardened fecal matter; the ascending colon also contained fecal matter, but softer in consistence and less in quantity than that in the cecum. The transverse colon for nearly its entire extent was the seat of a large tumor-like mass, several inches in length, irregular in contour, and of a pale lardaceous color. The tumor was included between two ligatures and the mass removed. The mass was opened along its upper border from end to end when it was observed that the tube was completely obstructed by a constricting band. The obstruction was complete and the constricted portion was about two inches in length.

Further examination of the abdominal organs disclosed nothing out of the ordinary. The mass was examined later microscopically and found to be cancer.

This case must inevitably have ended fatally, though operative measures might have prolonged life somewhat.

CASE VI. Male, adult, found by me lying on the marble slab in the morgue at Detroit. The cause of death was determined at first glance to be strangulated inguinal hernia. The following history was obtained at the inquest held by the coroner: two days prior to death the man, who had a room in a cheap boarding house, was heard moaning and making considerable noise, evidently with intent to attract attention. The outcries brought the house-keeper who discovered the man to be sick and sent for a physician. He came, made a cursory, or no, examination, pronounced it to be a case of cholera morbus, left a prescription, and then left himself. Next morning the patient was found to have departed to a land where mistakes in diagnosis are supposed not to occur. The autopsy in this case, as noted, disclosed a strangulated inguinal hernia; the knuckle of gut involved was black and gangrenous. Death was probably hastened in this case by the effects of a prolonged debauch.

CASE VII. Man 60 years of age, with a long history of digestive and liver aberration, was taken in the night with severe pains referred to the left side, running from the region occupied by small intestines, but dull on percussion over entire region of colon. A history of constipation and over-feeding completes the picture, inasmuch as there was no temperature or disturbance of heart action. Gave two grains of calomel and one grain podophyllin. After

eight hours with no response, the dose was repeated; six hours later, still no response, ordered six seidlitz powders, one to be given every two hours and as an additional persuasive measure capsules containing two drops of croton oil. The seidlitz powders were given as directed, and with the second, third and fourth powders the two drop doses of croton oil were given. Twelve hours later, no result from the cathartics. Meanwhile, however, believing that stimulation from the mouth would fail to clear the colon, enemas every two hours were administered; the first two or three brought away little fecal matter. But later, using a long rectal tube attached to a fountain syringe, the mass was gradually softened and after four days of persistent effort the colon was emptied of a mass of fecal matter, the patient recovering rather slowly but completely.

One feature of this case should be brought out in stronger terms: the pain in the side was intense, causing outcries of acute agony, simulating by its location and spasmodic character renal colic. It was very misleading; only careful palpation and percussion could have made out anything like a satisfactory diagnosis.

MURDERED FOR TEN DOLLARS.*

By J. T. REDDICK, M. D., Paducah, Ky.

Mr. President and fellow members of the McCracken County Medical Society:

This is an unusual title for a paper to be read before a medical society.

I was called, Sunday, February 12, 1905, to see Mrs. B., aged 18 years. She was married in September, 1904. Menstruated once after marriage, October 7th, 1904. When I entered her room and asked as to her trouble her husband said, "She is pregnant, has visited a doctor against my will, and is having labor pains." An examination showed that there had been a rupture of the amnion and she was having hard labor pains.

In a few hours she was delivered of a fetus, which from its development and history of case must have been at least four months advanced.

I was informed by the patient that she had visited Dr. ———, naming a member of this society, on Tuesday, Feb. 7th, Thursday, Feb. 9th, and Saturday, Feb. 11th, 1905. He had examined her with instruments, operated upon her with instruments, each day, charged her ten dollars, told her he thought she would get along all right, and if she did not to let him know. I asked her what reasons she gave for wanting an abortion produced.

She said none, she simply told him what she wanted and he did it.

Webster defines murder, as, "1st, the act of killing a human being with malice premeditated or aforethought, express or implied."

"2nd. To kill with premeditated malice."
"3rd. To destroy; to put an end to."

Webster also defines life as "that state of an animal or plant in which its organs are capable of performing their functions. A person, a living being, usually or always a human being."

Life is defined in Foster's encyclopedic medical dictionary as "that existence which is characterized by the power an organized being has to assimilate from its surroundings material for its support, to change its form by growth and reproduce its kind."

Hence it seems to me that any remedy, medicine or instrument criminally used, to cause the uterus to expel or throw off the product of conception, at any stage of uterogestation, can be nothing more nor less than murder.

The question of criminal abortion has been agitating the minds of the medical profession of this country for many years. "So long ago as 1857 the American Medical Association became aroused on the subject, and at its meeting in Nashville in that year appointed a committee of eight prominent and able men to report upon criminal abortion with a view to its general suppression. A report was made in May of the next year at Louisville which, with the resolutions accompanying it, was unanimously adopted. At a subsequent meeting a popular prize essay was authorized by the association in which the wickedness of the crime should be set forth, its frequency condemned, and its injurious effects fully explained, so that any woman could easily understand. The essay accepted was written by Dr. H. R. Storer, of Boston, and was entitled, "Why not? or a book for every woman." A very large number was printed and placed for sale in the book stores throughout the length and breadth of the land. Medical, secular and religious journals commented favorably upon the essay, and the frequency and criminality of abortions were clearly set forth and its perpetrators were severely denounced. Thus you will see that almost half a century ago, the importance of the subject and the needs which existed for its suppression, were recognized by the highest medical body of the land."

The agitation at that time no doubt did good and brought about special legislation in some states, prohibiting the practice of criminal abortion and providing for the infliction of proper penalties upon those guilty. I am sorry to say that if I am correctly informed,

* Read before the McCracken County Medical Society, at Paducah, Ky., November 15, 1904.

our own State is sadly deficient in laws along this line,—there having been no special legislation,—but the crime is punishable only under the common law, and under the common law it is only a misdemeanor *after* the period of “quickenings” with a light penalty; the law, I believe, takes no cognizance of the crime before “quickenings,” and it becomes a felony only in the event of the death of the mother.

You can readily see how ineffective the law is, even in the graver cases, for the victim is dead and the individual who is responsible for her death would hardly be expected to inform on himself.

And this is the case in this State, notwithstanding the fact that spasmodic efforts have been made for years by the medical profession, to secure the enactment of sufficient laws regulating this practice. I note that at the forty-first annual meeting of the Kentucky State Medical Society, held at Lebanon, Ky., in 1896, the “chair appointed a Committee on Legislation to Prevent Abortion.” Drs. McCormack, Hume, Todd, Adamson and V. L. Coleman were appointed. The legislature was in session the following winter and in the Senate Mr. Petrie, of Todd county, introduced a bill to prevent criminal abortion and to punish those guilty of the offense. The statement was made that the bill was introduced as the result of vigorous work on the part of the Kentucky State Medical Society through a special committee appointed for that purpose.

Some three years ago our local society took the matter up through a committee appointed for that purpose, had a lawyer to draft a proposed act, forwarded the same to our representative in the legislature, (the legislature being then sitting) with the urgent request that they do every thing in their power to secure its passage, which they readily agreed to do. At the same time we had circular letters printed, and instructed our secretary to send same to all the county societies in the State asking their co-operation in this matter, through their representatives. That was the last we heard of it. At the 1904 Lexington meeting of the Kentucky State Medical Association, Dr. C. Z. Aud, of Cecilian, Ky., one of the prominent physicians of the State, read a paper, the title of which was, “In what per cent. is the regular profession responsible for criminal abortions, and what is the remedy?” Dr. Aud’s treatment of the subject was strong and it was of such manifest importance to the Association, the discussion which followed was prolonged and participated in by many leading men of the State. Dr. B. L. Bruner, of Hardyville, Ky., in discussing the paper said: “As a member of the legislature two years ago, I introduced an amendment where-

by we would be able to punish some of those who do these things. I was surprised to see how little interest was taken in this bill.” He said “now let us have a committee appointed that will push the matter intelligently and persistently, and see that something is done. Let us begin at once to prepare, and see that men are nominated on the tickets of both parties who will support a law that will enable us to put a stop to criminal abortion.” Dr. Aud’s paper and discussion of same was published in the September, 1904, number of the *Kentucky Medical Journal* and a perusal of same would well repay you.

Frequency of Criminal Abortion. “In estimating the frequency of criminal abortion we are at once met with the difficulty that only those cases detected or brought to trial are available for statistics. Cases in which criminal abortion is followed by no complications are seldom made public. Philips endeavored to ascertain the frequency and results of criminal abortion by questions sent to practicing physicians. Seventy-five physicians estimated that throughout the country in which they practiced 63.5 per cent of abortions were criminal. The average death rate was reported as 2 per cent. The same observers estimated that 49.5 per cent. of those women having criminal abortions remained chronically ill as a result. Comparing these figures with the results of spontaneous abortion, we find the mortality of the latter to be 1.75 per cent., while the chronic disability is 38.5 per cent. These results were obtained from physicians practicing in small towns and in the country, and not from specialists in large cities. Storer, of Newport, R. I., has drawn repeated attention to the progressive decrease in population in some portions of New England, which he ascribes largely to criminal abortion. From the report of the special committee on criminal abortion (Michigan State Board of Health) we learn that from correspondence with 100 physicians, the committee estimated that one-third of all pregnancies throughout the country end in abortion. This is estimated at not less than 100,000 yearly. A large number of these are criminal abortions from which the committee estimated that 6,000 women die yearly.”

“By a further study of this subject we are taught that criminal abortion has been recorded in history from the earliest times. The statutes of Moses contain no laws in relation to this crime except the sweeping law of the sixth commandment, *Thou Shalt Not Kill.*”

“Among the Mohammedans the practice is very prevalent, for although it is contrary to the laws of Mohammed, it is considered less wicked than to give birth to an illegitimate

child. In China, Japan, India and Africa this practice has been, and still is, fearfully prevalent. Those benighted peoples with their teeming and redundant populations place very little value on human life. Rome was filled with abortionists, and the crime prevailed, as in our day, chiefly among the upper classes of society; and infanticide continued to prevail in Rome until the epoch of Ulpian, in A. D. 205, who repressed it with severe penalties."

Coming Down To Our Own Time. "There is no darker page in history than this sin. Countless millions of human lives have thus been sacrificed and probably at no period of the world's history has the slaughter been greater than in our own times. The results to our own country and to the world at large have been disastrous to the last degree. We physicians are constantly called upon to attend women who are aborting or who have aborted. We know it to be prominent amongst the great vices of the day. It has increased so rapidly in our day and generation that it has created surprise and alarm in all conscientious persons who are informed of the extent to which it is carried. Writers upon domestic economy, upon vital statistics, upon the natural increase and decrease of our population, upon law, upon theology, and medicine, all vie with each other in attesting the importance and wickedness of forced abortion, and all, so far as they mention this point, agree that it has been not only distressingly frequent in the past, but that it has been steadily upon the increase. Our consultation rooms are in reality confessionals wherein, trusting in the known inviolability of a doctor's confidence, the patients tell of their misdeeds, led to do so by the desire to aid the physicians in their bodily cure. Accurate statistics never have been and never will be published showing the frequency of the crime, and our only evidence can be by confession, for the deed is done under the cover of secrecy on the part of those concerned."

An eminent physician of thirty years' practice, has been quoted as saying that he believed that more than one half of the human race died before birth, and that three fourths of these were abortions by intent.

Causes of Criminal Abortion. The want of specific legislation in our State and many other states, contribute to the prevalence of the crime. The sentiment that the embryo is not endowed with life until the period of "quickening," no doubt causes many abortions among married women. "Many otherwise good women, who would part with their right hands rather than to commit

a crime, seem to believe that prior to quickening, it is no more harm to cause the evacuation of the contents of their wombs than it is that of their bowels or bladders. The law itself is largely upon their side in this most important question. The experience of every physician is that good women as well as bad are committing this wrong, in utter ignorance of the fact that it is a crime." Abortionists are to be found in every town and village, who ply their nefarious business undisturbed. Often it is a so-called reputable physician, sometimes a midwife, frequently an ignorant negress. I have heard of so-called prominent ladies being in possession of uterine probes and other paraphernalia, which they passed around among their friends, and I have attended women who died as the result of this bunglesome butchery.

"The most contemptible being on earth is the physician who is a professional abortionist; a being who recognizes no higher law than his own base interests; whose heart has long ceased to know a humane feeling, whose soul is freighted with abominable crimes, whose hands are stained with the blood of innocent children, victims of his foul lust for gain."

Married women, I believe, practice criminal abortion more than the unmarried. They as unhesitatingly and unblushingly come to my office and ask me to produce an abortion as they do for any other professional advice. Some years ago I was called to see a married lady and removed a long handled shoe buttoner from her cervix-uteri. Some two years ago I was called to see a married lady who had straightened out an ordinary wire hair pin, made a hook at one end, passed it into her uterus and in withdrawing it caught hook in cervix. I had to dilate the cervix before I could extract it. She aborted. Some time ago a prominent married woman, for whom I had been practicing for some time, became pregnant; I was called and she begged me to produce an abortion. I positively declined; the next news I heard, she was having another physician to do her work. The pregnancy did not continue. Several years ago I attended a young married woman through her first pregnancy, the latter months of which she was very ill. She went to another city, became pregnant again. One morning I received a letter from her husband stating her condition and asking me to write her physician, and in same mail I received a letter from her physician saying that they wanted an abortion produced. He declined to do it. They came to Paducah, her husband called at my office asking my interference in the matter. I told him that not-

withstanding she had a serious time in her former pregnancy, it was not a reason why she should have this time; that I would not produce an abortion except to save the life of the mother, and not then without consultation. In a short time I heard that a physician whom I had good reason to believe was a professional abortionist, was visiting her. The pregnancy did not continue. I could recite many instances like these coming in my own practice but will not take your time.

Why do so many women resort to criminal abortion? "The unmarried woman of course does it to hide her shame. My sympathies are with her. Were we, the physicians, "the judges" we could more readily pardon the despairing, the seduced girl, the victim of treachery and deceit, whose mind is depressed and often actually deranged by the tremendous shame and sorrow, whose thoughts now turn to a mode of relief from which she would in her right senses recoil in horror and dismay, whose physical and mental system is weak and prostrated, whose parents have disowned her, who stands oft times in her wild frenzy by the river meditating death, fearing the social degradation to herself and illegitimacy of her innocent child which her natural instinct teaches her to love. While I in no way defend the crime under any circumstance, yet for the deceived, fallen girl, in her depressed and disordered mind, let us be charitable enough to deeply sympathize with her."

But what pretext can the married woman give? It is ridiculously absurd, the excuses some of them give. Some time ago a young married man came to me to get something "to bring his wife around," and on being asked why he wanted it done, said she had just bought a new dress and if pregnancy was allowed to continue she would not have an opportunity to wear it. The luxuries of life, the demands of fashionable society, the dislike of children, the expense of their maintenance and education, questions of taste, indolence and convenience are assigned as reasons for abortion, all of which are cowardly, dirty, contemptible and bloody.

Danger of Criminal Abortion. "We are all familiar with the scrupulous care which it is necessary to exercise in the treatment of an inevitable or legitimate abortion or miscarriage—care toward the patient's general condition and surroundings, care in the sterilization of the 'field of operation' and the surgeon's hands and instruments, care in the skillful performance of curettage or intra-uterine douching and drainage, and care in the subsequent treatment of the case. With

all these precautions, done by skillful hands, the operation is usually unattended by evil consequences. How different are the procedures and the subsequent history of the case if the abortion has been done criminally. In this event a serious operation has been done by deceit and stealth, with no preliminary preparations, by an operator who is no surgeon, heartless, immoral, with hands reeking with the blood of other misdeeds, upon a patient who is desperate, abandoned, and perhaps exhausted by her efforts at concealment. Everything is done contrary to surgical rules in the preparation of the patient, in the preparation of the abortionist's hands and instruments, and in the subsequent care and treatment of the case. The abortionist wants the fee and nothing else, except that the woman shall not die; her shattered health is a matter of no concern to the coarse and unskilled brute. The desperate woman goes alone, without any witness, to the office of the abortionist and barter with him on the life of the babe within her womb. Dirty instruments are used, perhaps her vagina stuffed with cotton, she pays her fee and departs. Within a few hours or days 'labor pains' come on, after a few hours *something* passes and if it is a *formed* fetus she hides it or burns it. After the severe pains have subsided she gets up and resumes her ordinary duties, flattering herself or perhaps telling a confidential friend, that everything is now all right. For two or three days she may do fairly well and begin to laugh at the doctor who had pleaded with her and frightened her with the danger to herself. But now her condition becomes worse and she is compelled to take to her bed; the tissues of the ovum which were retained have been infected during these few days, and she begins to show the symptoms of peritonitis and general blood poisoning, which condition may directly destroy her life or result in serious, permanent pelvic disease. The occurrence of abortion takes the uterus at a disadvantage. It is immature; it is not ready to expel its contents; its contracting powers are not developed, and its contractions are imperfect after, as well as before the act. The membranes are especially adherent, and frequently, if not always, some portion of them is retained after the premature expulsion of the embryo. The decidua is soft, enlarged, and its bulky remains easily form the nidus for the development of germs for the future production of septicaemia or menorrhagia. Traumatism is frequently present inviting the absorption of septic germs; and if blood poisoning in a grave form is fortunately escaped, cellulitis, salpingitis, endometritis and the various uterine displacements

which naturally follow as a painful train of symptoms."

Remedies for Preventing Criminal Abortion. If the foregoing statements be true, and I believe you will all agree with me that the statements are not overdrawn, then it behooves us as physicians and humanitarians to remedy this matter. First, it should be our earnest effort to secure positive and definite legislation in Kentucky along these lines. As I have said before, spasmodic efforts have been made but they have lacked concerted action. I do not hesitate to say that I believe, with our present organization in this State, and the high standing and influence of the State's reputable physicians in their respective communities, if it were gone about properly, such a pressure could be brought to bear upon the law makers, that this much needed legislation could be had at the next sitting of the legislature. And permit me to say here, parenthetically, that I think we ought to assiduously stand by our organization, for through it we will be placed in a better position to secure such legislation as would be for the advancement of our profession, and on the other hand we could prevent or repeal legislation inimical to our interests.

Several states have already secured proper legislation along these lines. Permit me to briefly mention Colorado's laws. "Every person who shall, willfully and maliciously, administer or cause to be administered, to, or taken by, any person, any poison or other noxious or destructive substance, or liquid, with the intent to cause the death of such person, and being thereof duly convicted, shall be punished by confinement in the penitentiary for a time not less than one year and not more than ten years; and any person who shall administer, or cause to be administered, or taken, any such poison, substance or liquid, or who shall use, or cause to be used, any instrument of whatever kind, with the intention to procure the miscarriage of any woman then being with child, and shall thereof be duly convicted, shall be imprisoned for a term not exceeding three years in the penitentiary and fined in a sum not exceeding one thousand dollars; and if any woman by reason of such treatment shall die, the person or persons administering or causing to be administered such poison, substance, or liquid, or using or causing to be used any instrument as aforesaid, shall be deemed guilty of murder, and if convicted, be punished accordingly, unless it appears that such miscarriage was procured or attempted by or under advice of a physician or surgeon with intent to save the life of such woman or to prevent serious and permanent bodily injury to her."

The next thing in the way of remedial importance along this line, is that of educating our women that they do not have to wait until "quickenings" before there is life. Just as soon as the ovum of the female comes under the fructifying influence of the spermatozoa of the male, then there is life. I believe that the fetus is just as much alive at one period of its intra-uterine existence as another; it must be alive or dead all the time. If alive, it is just as much a crime to kill it in the first month of pregnancy as in the ninth, or after it is born. Our text books all teach, and the profession holds, that the spark of life is infused at conception.

And finally, we ought to be true physicians; if our would-be patient be married, let us always tell her of the enormity of the crime and the dangers of the practice; if she be unmarried, then direct her to some of the retreats where she can hide her shame. There are plenty of reputable places now, in the cities, where she can be properly cared for.

"The position of physician is indeed unique; no other class of men are called upon to commit murder as they are; but these temptations which are presented to every physician should be put aside *without* exception. No argument which the woman may offer to save her from disgrace, no appeal to his sympathies, no fee which might excite his avarice, should lead him to commit this crime against human and divine law."

"Every man who undertakes the practice of medicine is met upon the threshold of his career by what I do not hesitate to pronounce, one of the most powerful, baneful, damning, combinations of temptation that can possibly assail the human heart. All that is good, all that is evil within him is subjected to the utmost pressure that can be brought to bear by the combined influences of pity, sympathy, and sometimes greed.

Youth and beauty on bended knee, with clasped hands and streaming eyes, implore help with more devoted earnestness of purpose, with more burning reality of feeling, than that with which it approaches the throne of Grace."

In the foregoing paper I have made liberal quotations from papers read before the Washington Obstetrical and Gynecological Society, some years ago, by Drs. John T. Winter and Joseph Tabor Johnson, and published at that time in the American Journal of Obstetrics. Also that part of the paper relative to the frequency of criminal abortion is quoted from a "Text Book of Legal Medicine and Toxicology" by Peterson and Haines, (1904).

PROGRESS IN GENERAL SURGERY.

Under Charge of IRVIN ABELL, M. D., Louisville, Ky.

Hydrocele in the female—A case of dermoid of the female urinary bladder—A case of traumatic hernia of the lung without external injury—Contribution to the treatment of injuries of the diaphragm—Is the transplantation of the cord necessary in inguinal hernia?—A review of one thousand operations for gall stone disease—Case of bone transference.

HYDROCELE IN THE FEMALE:

Albert E. Halstead and Charles P. Clark report in the May issue of the *Annals of Surgery* a case of hydrocele in a female coming to operation for a supposed strangulated hernia. The tumor in the right inguinal region had appeared 18 years before and had always been reducible until eight days before she came under the observation of the writers, following which she had severe pain in the tumor, constipation, and emesis; at the operation a bilocular cyst was found, communicating at its upper end with the free peritoneal cavity, the two sacs being formed by the constriction of the internal ring, so that the upper sac was inside the abdomen. The communication existing between this and the cavity of the peritoneum explained the former reducibility; a small bean shaped body, apparently of recent inflammatory origin, plugged this opening, explaining the failure to reduce the tumor at the time she came under observation, and its simulation of a strangulated hernia. Microscopically the cyst consisted of fibrous tissue without an endothelial lining.

Rignoli divides all cases of hydrocele in the female into five groups: (1) Diffuse hydrocele or hydrocele of the cellular tissue about the round ligament. (2) An accumulation of fluid in the canal of Nuck, communicating with the free peritoneal cavity. (3) An accumulation of fluid in the vaginal process without a communication with the general peritoneal cavity, an encysted hydrocele. (4) An encysted hydrocele in the connective tissue about the round ligament. A condition similar to group 1. (5) An accumulation of fluid in the remains of an old hernial sac.

The existence of true hydrocele of the canal of Nuck has been denied particularly by the French, claiming the absence of a true vaginal process of the peritoneum; but the researches of Zuckerkandl, Niedmann, Bergmann, and Sachs establish the existence of such a sac.

Bergmann examined 158 female cadavers between the ages of one month and three years and found the canal patulous throughout in five and partially open in twelve.

Sachs found it in 37 out of 150, and Niemann in 28 of 46 that were examined.

In most of the reported cases the true condition was recognized only when an operation was undertaken for the supposed hernia.

A CASE OF DERMOID OF THE FEMALE URINARY BLADDER.

Jacob Block and Frank J. Hall report, in the April issue of the *American Journal of the Medical Sciences*, the case of an eighteen year old girl, giving symptoms of severe bladder irritation, who averaged semimonthly a calculus extrusion; the calculi were small, from 5 cgm to 5dcm; in shape pyriform, at times resembling a club, some curved, resembling a comma, others an interrogation point, in contour; from the apex of most, if not all, there protruded a hair with a terminal investing root sheath. Urine showed pus only as an adventitious element. Cystoscopic examination revealed a 19 gm stone lying in trigone of bladder, and a tumor to the right and behind the right urethral orifice; stone and tumor removed by suprapubic section, tumor small, with hair protruding from surface; the deposition of the urinary salts upon these hairs with their subsequent exfoliation explained the shape and characteristics of the extruded calculi. The pathologist reports the tumor as a typical dermoid.

Patient's recovery uneventful and complete; cystoscopy showed bladder to have a minimum of hyperaemia, the site formerly occupied by tumor represented by a circular disk or scar.

A CASE OF TRAUMATIC HERNIA OF THE LUNG WITHOUT EXTERNAL INJURY.

Cahen in the January 3rd number of the *Muenchener Medizinische Wochenschrift* reports the case of a forty year old laborer who, while lifting a chest of tobacco, was caught between the falling chest and the wall so that the thorax became subjected to great pressure; he was admitted to the hospital for the injury to the right upper arm and shoulder; this was about well in four weeks time when he noticed that upon leaning well forward a tumor appeared in the right sterno-clavicular angle; upon taking a deep breath and straining the tumor extended down over the second rib and up over the clavicle, attaining the size and shape of a hen egg, the large end being directed upward and the small one downward. The tumor was resonant upon percussion, and auscultation revealed the vesicular murmur; aspiration negative. The diagnosis was confirmed upon the hernia becoming obstructed, its reduction being effected by taxis, the characteristic air bubble sensation of feel of the lung being imparted to

the finger during the manipulation. There was no injury of rib or clavicle. In the reported cases of hernia of the lung without rib injury, all have developed after the lapse of several weeks, and are evidently due to the rupture of the intercostal musculature at time of injury, with subsequent protrusion at this point under the thoracic pressure.

CONTRIBUTION TO THE TREATMENT OF INJURIES OF THE DIAPHRAGM.

Desider Rona in the *Deutsche Medizinische Wochenschrift* calls attention to the importance of injuries of the diaphragm on account of the resulting herniae with their complications. He quotes the 535 cases of diaphragmatic hernia compiled by Grosser of which 244 were congenital and 181 resulted from trauma. The injuries most likely to be followed by hernia are those of a stab nature. Of 54 traumatic herniae of the diaphragm collected by Popp and Giesse 27 were the result of such injuries. The fully developed hernia of the diaphragm presents such difficulty of recognition that a diagnosis during life is extremely difficult; of 245 cases collected by Leichtenstern only three were recognized during life. In the literature at his command he only found one successfully operated for incarcerated diaphragmatic hernia, that of Fritzsche in 1900. On account of the danger of such herniae he insists upon the importance of immediate repair of injuries of the septum. Of the two methods of approach, the abdominal and through the pleura by means of rib resection, he advises the latter since in the reported cases only 50 per cent of cures were obtained by the abdominal route, while 96 per cent were obtained by the pleural route. In 1903 C. Lenormant collected 23 cases of successful repair of injuries of the diaphragm. The writer reports a case of his, a fifteen year old boy with a stab wound between the eighth and ninth ribs in the mid-axillary line, through which protruded a piece of omentum. He resected six inches of the eighth rib, amputated the protruding omentum, and stitched the upper edge or margin of the incision in the diaphragm to the parietal pleura, thus insuring the separation of the abdominal and pleural cavities, after which the remainder of the wound was closed by suture. Recovery was uneventful.

IS THE TRANSPLANTATION OF THE CORD NECESSARY IN INGUINAL HERNIA?

In the March issue of the *American Journal of the Medical Sciences* F. Gregory Connell reviews the anatomy and physiology of the inguinal canal, with the operative methods in vogue at present for the radical cure of hernia. Many operators of the present day

disregard the older teachings, believing the transplantation of the cord to be an unnecessary and objectionable detail, and attempt to repair and strengthen the anterior wall of the canal instead of making the posterior strong at the expense of the anterior. Wolfler, in 1892, was possibly the first to suggest the latter procedure; E. W. Andrew in 1895 suggested a similar one, and Ferguson in 1899 presented his method; following these Bloodgood, Girard, Hoffman, and Halstead devised and presented, independently, similar operations, having as their object the repair of hernia without transplantation of the cord. The objections to the transplantation of the cord as given by Connell are as follows: 1. An interference with the circulation and function of the testicle; in separating the cord it is torn from its natural surroundings, necessarily roughly manipulated, and placed upon different structures, in which new location it is subjected to additional traumatism and is in a comparatively unprotected position; the muscular structures which were normally in front of it, are placed behind and offer a bulwark which affords a counter-pressure for any force exerted from the outside. 2. Strengthening the posterior wall at the expense of the anterior. The aim of the Bassini and similar operations is the construction of a new canal which shall have an exceptionally strong floor or posterior wall. It takes less time and seems more rational to make the anterior wall strong and thus repair the natural canal. 3. The complexity of the operation. The transplantation of the cord requires more time, greater dissection, consequently more handling with greater liability to infection. 4. Recurrence: this occurs after all methods of operating, but with the latter day technique can be practically disregarded.

The author describes the "Ferguson type operation," and concludes its great ease and simplicity, with the elimination of the danger of secondary changes in the testicle, are, perhaps, the more conspicuous reasons for its further trial.

A REVIEW OF ONE THOUSAND OPERATIONS FOR GALLSTONE DISEASE.

In the March issue of the *American Journal of the Medical Sciences* the Mayo brothers review their mortality with 1000 cases of gallstone disease, of which number 50 died, constituting a total mortality of 5 per cent.: this included all cases dying in the hospital after operation, whether immediately following the operation or later, some being as late as three months and due not so much to the operation as to the vitiated condition following prolonged jaundice and infection dependent upon stone in the common duct.

However from purposes of fairness they include all cases dying from any causes before being sufficiently convalescent to leave the hospital. In the benign series there were 960 cases with a mortality of 4.27 per cent.; in the malignant, 40 cases with 22 per cent.; 573 cholecystostomies, mortality 2.46 per cent.; 186 cholecystectomies, mortality 4.3 per cent. This does not include 101 cholecystostomies and 44 cholecystectomies performed as part of a common duct operation, they counting as one operation all work done through a single incision, the major or most serious part being classified, the other considered secondary and appearing only in the record of the patient. Of the common duct operations 137 were benign, with 16 deaths, 11.7 per cent.; 7 per cent. of these deaths were the direct result of the operation, that is died within a few days; 4 per cent. recovered from the operation, but did not regain sufficient strength to leave the hospital; death in these cases was due to prolonged icterus, infection, and anaemia. Of the 40 operations done for malignant disease, 9 died in the hospital, "and of those that recovered comparatively few received sufficient palliation to repay the immediate risk, suffering, and expense." Two cases only could be considered favorable as to cure, both having gone more than two years without evidence of return. They regard malignancy, acute perforative infections, and involvement of the common duct of the liver as the most important complications of gallstone disease. In no case under their observation did stones reform in the gall bladder when left; consequently they consider cholecystostomy as a safe operation, reserving cholecystectomy for definite indications, outlined as follows: cystic gall bladders, especially those due to impaction of stone in cystic duct, as in these cases stricture of cystic duct may be expected to follow; gall bladders containing bile at time of operation may be left; those which are suspiciously hard and thick should be excised, as in this way early malignancy may be occasionally cured, as in the two cases mentioned; in most cases of chronic cholecystitis without stones the bladder should be removed, as an infection which is able to continue without the aid of foreign bodies calls for a radical operation; in patients who have gallstones and who have suffered from attacks of jaundice and other symptoms of infection of the common and liver ducts, but without stones in the ducts, cholecystostomy is the operation of choice, as it furnishes drainage. Regarding the contention that the gall bladder in gallstone disease is obsolete and should be removed in every case they say: "In our experience there

has been a slightly increased hazard and without compensating increase in permanence of cure or shortening of convalescence in the average case." The most common cause of death where gall bladder alone was involved has been a descending infection of the common and hepatic ducts; this infection institutes a process which may result in stone formations even in the most minute bile ducts, and future trouble after apparent cure may be the result. In the common duct operations the mortality, both immediate and remote, may be traced to jaundice and infection.

During the acute stage of these cases, that is, when jaundice and infection are present, operation is fraught with danger; in the quiescent period their mortality has been 2 per cent. Unfortunately the operation can not be done in all cases during this period of election but must be undertaken as a life saving procedure. They have used chloride of calcium in all cases of jaundice but are uncertain as to its exact value. They have had two cases of reformation of stones after common duct operations. Liver duct stones have, in their experience, always been preceded by common duct stone furnishing partial obstruction and mild infection. In the 1000 operations 14.6 per cent. involved the common duct.

CASE OF BONE TRANSFERENCE.

In the February issue of the *Annals of Surgery* Huntingdon reports a case illustrating the possibility of supplying a tibial defect amounting to absence of nearly the entire diaphysis by the appropriation of a corresponding portion of its companion, the fibula. The patient was a boy of seven who, as a result of an acute osteomyelitis, had suffered the loss of the left tibia between its epiphyseal extremities; the periosteum was preserved and stitched together in the shape of a hollow tube; after six months effort on the part of nature at repair there still remained an interval of about five inches between the upper and lower fragments, and progress in this direction seemed to be suspended; at this time the leg could not be extended upon the thigh but hung loose, flail like, and utterly useless. The fibula was sawn through at a point corresponding to the lower end of the upper tibial fragment and firmly attached in a cup-shaped depression in it. At this time the diameter of the fibula was about that of a lead pencil, approximately one third of the diameter of the normal tibia at a corresponding point. Solidification was slow but finally complete after six months, allowing of locomotion but with a tendency to eversion on account of the oblique direction of the transplanted bone. Accordingly the lower end of

the fibula was transferred to the lower fragment of the tibia in a manner similar to the upper transplantation, with the end result that he boy regained good function of leg, joining in the ordinary games of ball and other sports of boys, walking without support and with only the suggestion of a limp. The leg, though three-quarters of an inch short, assumed in a general way the dimensions and contour of the normal member, the diameter of the transferred fibula being practically the same as the opposite tibia.

STATE BOARD OF HEALTH QUESTIONS.

The following were the questions asked at the recent examination held by the State Board of Health in Louisville. The result of the examination will be given in our next issue:

OTOLOGY.

1—Give symptoms of Acute Otitis Media. 2—Give diagnosis of Mastoid Abscess. 3—What Ear Symptoms indicate Fracture of the Skull? 4—Give diagnosis and treatment of Eczema of the External Auditory Canal. 5—What Ear Complications may result from Tonsillitis?

OPHTHALMOLOGY.

1—Give cause and symptoms of Ophthalmia Neonatorum. 2—Describe the Iris. 3—What is the treatment for Ptosis of the Eyelid? 4—(a) How would you detect a foreign body in front of the lens? (b) Behind the lens? 5—Diagnose Cataract

MEDICAL JURISPRUDENCE, MENTAL AND NERVOUS DISEASES.

1—What is Malpractice? 2—How would you distinguish human bloodstains on clothing? 3—What are the symptoms of poisoning by wood alcohol? 4—When is abortion legally justifiable? 5—How would you differentiate between (a) Narcotic Poisoning; (b) Drunkenness; (c) Uremia and (d) Concussion? 6—Differentiate between Hysteria and Melancholia. 7—Name and define two forms of insanity. 8—What mental conditions render a testator capable of making a will? 9—How would you distinguish between a male and female skeleton? 10—Differentiate between Infantile Paralysis and Idiocy.

PHYSICAL DIAGNOSIS.

1—Give the abnormal heart sounds and the point of the greatest intensity of each. 2—Give method of examination in suspected Pleuritic Effusion. 3—Give physical signs and method of examination in Ascites. 4—Give the land marks for the Colon. 5—Give the physical signs for Chronic Salpingitis.

BACTERIOLOGY.

1—How do cells multiply? 2—What is Germicide? 3—How would you secure a pure culture of the Bacillus Typhosus? 4—Give Koch's postulates or rules in regard to Bacterial cause of the disease. 5—Describe the Bacillus Tuberculosis and detail a method of staining it.

HYGIENE.

1—Define Hygiene. 2—How would you manage a case of Phthisis Pulmonalis to avoid danger to the other members of the family? 3—How would you manage a case of Scarlet Fever to prevent its spread, and what precautions would you take to avoid conveying it on your own clothing or person? 4—What is the source and danger of Carbon Monoxide in living rooms? 5—What are the qualities desirable in water for drinking purposes?

ANATOMY.

1—Describe the Great Sciatic Nerve. 2—Describe the Hypoblast and Mesoblast, and tell what structures are formed by each. 3—Describe one of the following bones: Femur, Radius or Astragalus. 4—Describe the Circle of Willis. 5—Describe the Deltoid Muscle. 6—Give the principle point to which the Pneumogastric Nerve is distributed. 7—Describe the gross and minute anatomy of the Kidney, and give the relations of structures entering and leaving it. 8—Name the muscles of the Gluteal Region. 9—Describe Pouparts Ligament. 10—Describe the Foramen of Winslow.

SURGERY.

1—What is Epistaxis? Give causes. How would you treat it? 2—Give the most common seat of fracture of the lower jaw, and the treatment. 3—Give the general points of difference between malignant and non-malignant Tumors. 4—Give the symptoms, methods of diagnosis and treatment of an enlarged Prostate. 5—What are the varieties of Fistula in Ano? Give treatment. 6—Give the classification of Aneurisms and tell how spontaneous recovery may occur. 7—What is a sprain, and tell what tis-

suess are involved? Give treatment for sprained ankle. 8—Give causes and treatment of Varicose Veins of lower extremity. 9. How may a fatty embolism of the kidney occur after a fracture? 10—Describe a Carbuncle and give treatment.

OBSTETRICS.

1—Describe the mechanism of a Normal Labor. 2—Give symptoms, causes and treatment of Acute Mastitis. 3—Differentiate between Pregnancy and Fibroid of the Uterus. 4—Give the cause and treatment of Post Partum Hemorrhage. 5—How would you diagnose and manage a Breech Presentation? 6—Give the method of determining the quality of the Lactal Secretion. 7—Give the diagnosis and treatment of Foetal Death in Utero. 8—Give cause, diagnosis and treatment of Puerperal Eclampsia. 9—Give indications for and methods of Podalic Version. 10—Give prognosis for mother and child in Placenta Previa.

GYNECOLOGY.

1—How would you proceed to find whether a woman whom you had just delivered had a Lacerated Perineum, and how would you repair it? 2—How would you diagnose and treat Acute Gonorrhoea in the female? 3—What are the most common benign growths found in the cavity of the Uterus; causes, symptoms and treatment? 4—What would you suspect in a woman of fifty with a slight, constant, bloody uterine discharge, and how would you confirm or disprove your diagnosis? 5—How would you diagnose and treat Ectopic Gestation?

PHYSIOLOGY.

1—Describe the various kinds of Blood Corpuscles, their origin and function. 2—Name the principal Digestive Enzymes and their functions. 3—Describe a Cardiac Cycle and give the phenomena attending it. 4—Describe the Reflex Centers. 5—Give the function of the Skin. 6—Give the functions of the Lungs, describing the various processes. 7—Give the physiology of vision. 8—Describe the Lymphatic System, giving its functions. 9—How is animal heat produced, preserved and dissipated? 10—Describe the different kinds of Muscular Tissue and mode of action of each.

PATHOLOGY.

1—What diseases are attended with Cardiac Hypertrophy? 2—Describe the pathological changes in Hip Joint Disease. 3—Describe the pathology of Acute Military Tuberculosis. 4—Give the pathology of various forms of Goitre. 5—Give the pathology of Arterio-sclerosis. 6—Give the pathology of the different forms of Pleurisy. 7—What diseases are attended with Ulceration of the Intestines? 8—What general pathological lesion characterizes Chronic Alcoholism? 9—Give the pathology of Rickets. 10—What is a Parasite? A Saprophyte?

CHEMISTRY.

1—Mention ten elements, giving symbol, atomic weight and valency of each. 2—What is Sulphur? How is it obtained? Give test for it. 3—How many kinds of Heat? Describe them. 4—Give tests in detail for Albumen in Urine. Sugar. 5—Define the meaning of the prefixes—hypo-, proto-, bi- and per- in chemical nomenclature. Give examples. 6—Name the Alkaline Metals. 7—What are Alcohols? How classified? Give an example of each class. 8—How determine the presence of Organic Matter in Water? 9—What are Acids? What are Salts? How are each produced? 10—Give March's test for Arsenic.

SMALLPOX TO BE CURTAILED.

The State Board of Health of Pennsylvania has ordered the officials of the town of Portage to obtain a pest house. If this order is not carried out the Board of Health threatens to quarantine the entire town and will call out the militia to enforce the order. All dogs running at large are ordered to be shot, for it is thought that they may be instrumental in spreading the disease.—(Med. News, February 18, 1905.)

OSTEOPATHS NOT PHYSICIANS.

The Missouri Supreme Court has rendered an opinion in which it holds that osteopaths are not physicians and surgeons under the laws of that State, and that if they attempt to treat diseases they are responsible for damages resulting from injuries sustained by the persons under their care.—(Med. Rec. February 27, 1905.)

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A PLAN FOR THE REORGANIZATION OF THE JEFFERSON COUNTY MEDICAL SOCIETY.

The necessity for the reorganization of the Jefferson County Medical Society has long been apparent to all those familiar with its affairs, and several plans looking to this end have been proposed. At the last meeting of the society a committee was appointed, consisting of Doctors Bullitt, Frank and Moren, to report at the next meeting of the society a new constitution and by-laws, drawn up in consonance with the model constitution proposed by the reorganization committee of the American Medical Association, and at the same time suitable to the special conditions found in Jefferson county.

Doctor John G. Cecil, Chairman of the Council Kentucky State Medical Association, and Councillor of the Fifth District, has submitted to this committee the following plan for reorganization. The plan proposed is novel, but exceedingly practical, and is presented here to the careful consideration of the members of the Jefferson County Society. The committee above referred to will consider the plan in conjunction with certain necessary changes in the constitution and by-laws of the society, and will make report to the society at its next regular meeting.

1. Jefferson County Medical Society to modify its present constitution so as to embrace all the existing private medical societies in the county as sections.
2. The various societies to retain their organizations and membership, but to be known as, the Medico-chirurgical Society Section of the Jefferson County Medical Society; the Clinical Society Section of the Jefferson County Medical Society, and so on through the list. This to be in lieu, at least for the present, of having a medical, a surgical, an obstetrical, a genito-urinary, an ophthal-

mological, etc., section of the County Society.

3. The Jefferson County Medical Society to continue to meet bi-monthly. The section meetings to be so arranged that there will be at least one medical society meeting every week. All section meetings to be held at the same place (Galt House) and at the same hour (say 8 p. m.) and on days which will not conflict with each other nor with the bi-monthly meetings of the Jefferson County Society. The Jefferson County Society to hold afternoon and evening sessions as at present.
4. Section meetings in scientific work to be open to all members of the Jefferson County Medical Society. The program to be furnished entirely by the members of that section; that is, all papers, reports of cases, exhibition of clinical cases, or pathological specimens, etc., to be offered solely and only by the members of the section entertaining; the discussion to be open and free to all.
5. Section meetings to be followed by banquet or collation, as may be determined by the respective section, to which only members of that section will be expected. Expense of collation to be borne by that section.
6. Secretary of Jefferson County Medical Society to send notice of all meetings, both general and sectional, to all members of the Jefferson County Medical Society, or arrange a schedule of meetings for two months which can be published.
7. All members of sections must be, or become, members of the Jefferson County Medical Society. All new members elected to membership in a section must be from the membership of the Jefferson County Society.
8. As often as may be directed by the executive committee of the Jefferson County Society the secretary shall send notice of meetings, general and sectional, to every member of the medical profession in the county.
9. Officers of sections to be elected by the members of the section. New members of sections to be elected by the members of the section in any manner determined by the section.

This plan enables the County Society to retain its relation to the Kentucky State Medical Association. It will also strengthen the County Society and make it something like it ought to be. It will enable the different existing societies or clubs to retain their membership, their autonomy, reduce their ex-

penses, provided a larger audience for their scientific work and at the same time remain exclusive in their social relationship. The number of meetings held by each of the social clubs could be very materially diminished, but when the date of entertainment rolls round, the club entertaining would be stimulated to put forth its best effort, and a generous rivalry between clubs would be provoked. Instead, therefore, of attending a meeting once or twice monthly, there would be a meeting every week with the clubs in rotation acting as host and the zealous society man could at least have a scientific entertainment every week. This plan would probably attract the members of the medical profession who have not hitherto taken interest in society work.

RESULTS OF STATE BOARD EXAMINATIONS FOR THE YEAR 1904.

The Journal American Medical Association, May 6th, 1905, gives the summary of a stupendous work undertaken by it in the way of collecting statistics of results of examination before state examining boards for the year 1904. Readers interested are referred to that Journal for the full report. The appended table will be found of particular interest to Kentucky readers:

GRADUATES OF 1904 EXAMINED IN 1904
BY STATE BOARDS.

	Passed.	Failed.	Per Cent of Failures.
Hospital College of Medicine, Louisville	5	9	64.3
Kentucky School of Medicine, Louisville	13	7	35
Louisville Medical College, Louisville	15	1	6.3
University of Louisville, Medical Department	17	5	22.7
Kentucky University, Medical Department, Louisville	21	5	19.2

GRADUATES OF 1900-1904 EXAMINED IN 1904
BY STATE BOARDS.

	Passed.	Failed.	Per Cent of Failures.
Hospital College of Medicine, Louisville	14	14	50
Kentucky School of Medicine, Louisville	29	11	27.5
Louisville Medical College, Louisville	23	4	14.8
University of Louisville, Medical Department	20	10	33.3
Kentucky University, Medical Department, Louisville	22	7	24.1

ORGANIZATION WORK IN THIRD COUNCILLOR DISTRICT.

The Councillor of the Third District, Dr. A. T. McCormack, accompanied by the Secretary of the State Association, Dr. James B. Bullitt, began his yearly visitation of the county societies in his district at Munfordsville, Hart county, on Saturday morning, April 29th.

There are twenty-one physicians in Hart county, and of these eleven were present at

the meeting. It was a great pleasure to see Dr. P. C. Sutphin, of Canmer, at this meeting. He is the nestor of the profession in Hart county, a man universally loved and respected. Dr. C. J. Walton, president of the society, although well advanced in years, still displays the energy and activity which long ago placed him amongst the leaders of the profession in his section of the State.

The Hart County Society is amongst the oldest in the state, its minute book showing it was organized in 1873. In the earlier years of its life its meetings were frequent and interesting, as attested by the minute book. With shame be it spoken that for the past year almost the only minute of the meetings was: "No meeting on account of no quorum being present."

Hart county has of late years well exemplified the evils which can befall the medical profession when it stands divided, each man for himself and the devil take the hindmost; fee cutting is all too common. Yet, as the Third District Councillor urged, the fee cutter is always an honest man. Realizing his own imperfectness, the fact that his services are worth less than other doctors, he at least has the grace and honor to ask less for what he knows is worth less (the last two words should be read as one word, worthless). This fact is never to be lost sight of. Several years ago the magistrates in Hart county got smart. They banded themselves together and declared the doctors should no longer be paid reasonable fees for caring for the county poor. They farmed out the district to the lowest bidder, and doctors were not lacking who were willing to undertake such practice for the year for twenty-five dollars. Twenty-five dollars! If the work were done conscientiously it would take almost half of many of these doctors' time. But the doctor took the twenty-five dollars and neglected his obligations, which was inevitable, and the devil got the poor patients. And the devil will get the doctor, too, someday! And may that day come soon!

If the doctors of Hart county would stand together in the harmony and brotherhood of organization, those same smart magistrates could be relegated to the quiet privilege of attending to their own affairs in private life, where they belong. The public of Hart county could be taught the lesson that there is no economy in cheap doctors; that a cheap cut-rate doctor is like a cheap horse, either lame, halt or blind.

Before the meeting adjourned the members of the Hart County Society determined to do everything possible to correct the evils in the midst of which they live, and which they themselves are so largely responsible for.

Metcalf County. From Munfordsville a very good road leads to Edmonton, the county seat of Metcalfe county, where a meeting was scheduled for Sunday morning at 10 o'clock. It would have been more convenient to have held this Sunday meeting at Glasgow in Barren county. But the secretary of the Barren County Society reported that it would be impossible to get his members together on Sunday, as most of them had to attend church. In view of recent events in Barren county it was readily agreed that the doctors in that county certainly *needed* to attend church and be prayed for; so arrangements were made instead for the meeting in Metcalfe county, where the doctors are of the kind who can take a day off, even from church, to attend a medical meeting.

Every physician in Metcalfe county was present in Edmonton on Sunday morning except one, who telephoned and announced that he had been detained by sickness. It had been intended that the morning sermon should be based on the text, "Let him who is without sin amongst you cast the first stone." But the doctors of Metcalfe county showed such a commendable zeal in attending the meeting that it was concluded they were mostly without sin, and that if the text were announced publicly there would be a perfect shower of stones and a probable fatality. So instead the following text was submitted: "Go oft to the house of thy friend, for the unused path grows up in weeds."

After the consideration of several interesting and instructive clinical cases, everybody sat down together at the hotel to a very good dinner. It is astonishing how close the breaking of bread together brings men. It is a practice which should be encouraged in every medical society.

Metcalf county is in a fair way to have a *profession* in that county. It will be borne in mind that there is a decided difference between a parcel of doctors, individual professional units, and a *profession* in a county. No matter how good the units may be, there can never be a profession until these units are brought together in the fellowship and sympathetic relationship of county organization. When this is accomplished, that instant the doctors of a county become a profession, and are enabled to exercise an influence and power hardly realized or even dreamed of by them.

Cumberland County. From Edmonton to Burksville in Cumberland county is a very pretty drive, albeit down many creek beds, and sometimes down the *wrong* creek beds. Down the valley of Marrowbone Creek are many fine farms and substantial old farm houses, built by the early settlers from Virginia. Just before reaching Burksville the

road takes a perpendicular course upward over a mountain, and then drops straight down into Burksville. It is really a most surprising performance. The Cumberland valley is very fertile and the houses and the hospitality would grace any of the smaller towns in any part of Kentucky. Every physician in Cumberland county attended the meeting at the court house on Monday morning except three. One of these was dead, it turned out, one was sick, while the third was not satisfactorily accounted for. There cannot be said to be a profession in Cumberland county. There are good physicians there, but they have no community of interest. They have not yet caught the idea there that organization is a salvation army movement amongst doctors, intended to bring the good and the bad in relations with one another, and for the purpose of making the bad good, and the good better. The two pilgrims did their very best to present this aspect of organization, and drove out of the beautiful valley with the prayerful hope that the Cumberland county doctors, in the coming year, would build up a profession in that county in every way worthy of its individual units. There is only one way to do it, and that is through the County Society.

Monroe County. From Burksville to Tompkinsville is a weary way, only slightly relieved for a part of the distance by a road through a virgin forest. Most of the forests in Kentucky have been violated by the hand of man, and in the case of the forest it is certainly true that beauty and virginity are one and the same.

Tompkinsville is a nice enough little town, in its own peculiar way. It has somewhat killing ways, however. About six men have been killed on the streets there in a comparatively short time. The people of Monroe county have such confidence in their physicians that they do not seem to mind being shot up and cut up occasionally. The hills of Monroe county are not very productive; in fact, the land is very poor there. But the county is rich in having a real medical profession. Nearly all of the doctors in the county are already members of the county society which meets regularly and is always well attended. Some of the members are compelled to take two days to attend some of these meetings. But they go, and consider the time well spent. Two years ago conditions in Monroe county were much the same as in adjoining counties. At that time a councillor visitation had for its fruits the arousing of both the interest and the conscience of the Monroe county doctors. They went to work with a will and with the firm determination either to have a real profession in that county or to get out of the bus-

iness of being mere venders of pills altogether. Monroe county stands to-day as a splendid example of what can be accomplished by a few earnest men working in harmony for good. These doctors not only come to the meetings, but they write papers; not occasionally but for every meeting. They bring their interesting or puzzling cases along and when they go home it is with the knowledge and satisfaction that they have learned things which will make them happier men, better doctors, able to give more intelligent service for the fee charged, and more ready for this reason to insist on the payment of the fee. Each has learned that each of the other doctors of Monroe county has his own peculiar knowledge born of his individual experiences, and has learned to appropriate these virtues and knowledge to his own use, becoming as many times richer thereby as there are other doctors in the county society. Lastly, and perhaps best of all, he has learned that the devil in the other fellow is not so black as he has oftentimes been painted, and having his own failings and shortcomings brought before him, has become the readier to consider gently the failings and faults of the others.

The meeting was held on Tuesday morning in the Christian church at Gamaliel, nearly all the physicians in the county being present. The whole morning was taken up with the exhibition and discussion of clinical cases. At noon the good ladies spread a goodly repast under the trees of the beautiful grove in which the church stands. The tables fairly groaned under the load of good things. At this juncture everyone present displayed commendable activity, the Councilor of the Third District particularly distinguishing himself by his gallant attentions to the bill of fare, going over the entire course from country ham to rhubarb pie twice in his enthusiasm.

In the afternoon arrangements had been made for open addresses to which the lay public was invited. The church was fairly filled with an intelligent and appreciative audience. Advantage was taken of the opportunity to call the attention of the public to what it has a right to expect of its doctors, and what, on the other hand, the doctors have a right to expect of the public. The latter has a right to expect its doctors to keep abreast of the times by every honest endeavor, by association together and salutary interchange of ideas and experiences; by occasional post graduate work in the larger medical centers. The public has a right to demand an intelligent service whenever it employs a physician, and this intelligent service can only be furnished by one who continuously employs

the means to make himself a better man and a better doctor. On the other hand the physician has a right to demand an adequate reward for this intelligent service, a reward sufficient to decently clothe and support his family, sufficient to enable him to attend important medical meetings at a distance and to go occasionally to the large centers for post graduate work.

If these mutual obligations are not zealously guarded and cultivated the public finally becomes obliged to get out a writ of discovery every time a physician is wanted, and after a foot or two of moss is scraped off the back of the suspected individual finally a dilapidated "M. D." is uncovered with the sign above, "Rooms to Let."

Barren County. From Gamaliel to Glasgow the road is good, but at the Glasgow end has the serious fault after dark of standing up first on one end and then on the other. When the near horse of the buckskin team has the thumps, this peculiarity of the road is most annoying. Glasgow has newly paved streets and an exceptionally good hotel, and presents every aspect of business and prosperity. Barren county has a number of good doctors, but a mighty poor profession. Certain unpleasant things have occurred in Glasgow in the past year or two which have not added to the lustre and renown of the medical profession. The Barren County Society had a meeting a year or so ago when the councilor went that way. Since that time it has been slumbering sweetly, only occasionally being awakened by the jars of the unpleasant things alluded to. The town doctors seem as a rule to be more responsible for this state of affairs than the country members. One doctor, living some miles away in the country, stated that he had prepared a paper on typhoid fever to read before the Barren County Society. He had actually worn that paper out in his pocket, seeking an opportunity to present it to the society, which never had a quorum present, though the town doctors could be seen walking around the square in plain view, but too indifferent to cross the street to attend the meeting. Another country doctor said he had come in to meetings a number of times, had always failed to find a quorum, and so had finally become discouraged and quit. What is the matter with the town doctors? Are they too good to associate with their brothers from the more rural districts? Are they already so full of the all-wisdom that no more drops can be squeezed into them? Or are they so busily engaged in other businesses that the practice of medicine no longer appeals to them? If any of these surmises is correct, especially the last named, let us pray for the hastening of the day

when their signs will come down and their spirits will go up—if, mayhaps, their lives should entitle them to ascension.

The meeting was held in the court house on Wednesday morning. Of the forty-three doctors in the county only sixteen were present. The proceedings were rudely broken into by a poor old man who has hallucinations about smallpox and chickenpox. He desired to have the whole question regulated for the rest of the world by resolution of the Barren county society. Poor old man! He is not long for this world, and when he goes to his reward, still clutching tight his dear illusion, surely all who heard him will unite in the prayer, "Peace to his ashes!"

More power was expended in the haranguing of the Barren county society than anywhere else on the trip, seemingly because they needed it more. Several members got up at the close of the meeting, confessed shortcomings and pledged themselves to do their full duty in the future in the way of building up professionalism in Barren county. A good dinner was served at the hotel from which all arose soothed in mind and refreshed in body. With such a good place for a good dinner it is a sure thing that the country doctors could not be kept away from the meetings if the town doctors would do their share and give them a dinner at the hotel every meeting day.

Allen County. The old State pike runs from Glasgow to Scottville. In Barren county the road is still good, and even in Allen county an occasional stone still remains in the road to indicate where the old pike used to be.

Allen County is much like Monroe in configuration and soil, but Scottville differs from Tompkinsville in this respect—when they want to do a man bodily injury in Scottville they throw rocks at him instead of shooting him or cutting him up. This indicates distinctly an economical turn of mind, as rocks are exceedingly plentiful in Allen county. Scottville boasts a new court house, which is a very good structure indeed, with a fine clock in its tower to tell the time of day. It is right in the center of the public square and so fills it up that it becomes necessary to go on a side street to breathe freely.

There are nineteen physicians in Allen county, nine of whom were present at the meeting Thursday morning. Organization up to the present time does not seem to have found a congenial abiding place in Allen county. But the doctors are there and prayers will be sent up daily that they may see the light and plant the fire of professional faith and unity amongst them and tend it zealously until it becomes an abiding faith and a daily habit and help.

Mr. Tibias Carpenter entertained the so-

ciety at dinner, and if he can be induced to do the same thing every meeting day the success of the Allen County Society is assured.

Simpson County. Franklin is a pretty little town, and Simpson county is a good county, and many doctors in Simpson county are good doctors; but the profession in Simpson County is as dead as a door nail. Dr. George W. Duncan, the patriarch of the profession and president of the county society, lies at home fatally ill. Others of the older men are indifferent and "too busy" to attend society meetings. The younger men have been slow to make up their minds to get along without the support of the older, and so organization has languished and all but died. But the doctors of Simpson county have taken a new hold, for which the Lord be praised. And they serve notice right here and now to the older men who are obstructionists and dogs in the manger, that they must either get in the band wagon and ride with the "boys" or get clear off the track. And that is the message which is going out to doctors, old and young, all over this country. If doctors will not try to be better, let us try to help them to get out of the profession entirely, and then help other men who are willing to do their proper part, to install themselves where they can best serve the needs and uses of the community.

For various reasons it was found impossible to visit Logan, Todd, Butler and Edmonson counties at this time.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The physicians of Cumberland county met at Burksville, Ky., at the court house, May 1st, at 10 o'clock a. m., to reorganize the County Medical Society. The house was called to order by Dr. H. L. Cartwright after which Dr. A. T. McCormack introduced Dr. James B. Bullitt, of Louisville, Ky. Dr. Bullitt gave us a good lecture on the "Importance of Organization or Unity," insisting that physicians were more prosperous financially where they were organized. After Dr. Bullitt closed his address, Dr. A. T. McCormack made a good speech; he reiterated the importance of organization and of physicians keeping abreast of the times. "Do your work well" was his motto. After Dr. McCormack closed his address a motion was

made to adjourn until 1 o'clock for dinner, which motion was carried.

At 1 o'clock the house was called to order by Dr. Cartwright, and short talks made by Dr. W. C. Keen and Dr. A. W. Sharp, after which a motion was made to elect new officers for the remainder of the year. This motion was carried and the following officers elected:

Dr. A. W. Sharp, of Kettle, Ky., President; Dr. J. S. Talbott, Vice President; Dr. R. L. Richardson, Secretary.

We agreed to meet on the second and fourth Wednesday of each month at 10 a. m., and also to have an afternoon session at one o'clock to report cases.

The physicians of Cumberland county want to express their thanks to Dr. James B. Bullitt and Dr. A. T. McCormack for their interest and help in our society, also for their most excellent speeches.

The following papers will be read at our meeting on Wednesday, May 24th, 1905:

"Acute Dysentery," W. W. C. Keen; "Chronic Gastritis," Dr. J. G. Talbott; "Otitis Media," Dr. P. M. Bristow; "Typhoid Fever," Dr. W. S. Taylor; "LaGrippe," Dr. A. W. Sharp.

R. L. RICHARDSON, Sec'y.

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The *Clark County Medical Society* met at Dr. Lyon's office in Winchester, April 8th.

Drs. McKinley, Stephenson, Clark, Venable, Shirley, Goodwin and Lyon were present.

Dr. Shirley made a timely talk on "Closer County Union." Dr. Lyon read a paper on "Renal Calculi with Report of Case." Quite a number of interesting and unusual cases were reported.

Drs. Brown, Stephenson, and Clark were appointed as essayists for the May meeting.

HOWARD LYON, Sec'y.

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The *Hart County Medical Society* met in Munfordsville April 29th, 1905; those present were Drs. P. C. Sutphin, W. W. Bowling, T. H. Garvin, C. J. Walton, A. C. Baldock, H. C. Bruner, C. Hall, F. L. Cessna, I. J. Mudd, G. G. Hubbard, and J. J. Adams.

Dr. James B. Bullitt, Secretary of the State Medical Association, was present and in his usual polished manner gave us a very interesting talk on medical organization and its benefits to the profession, emphasizing the fact that the physicians who keep abreast of the times and have the highest standing with the laity are the active members of county and state societies.

Dr. A. T. McCormack, Councillor for the Third District, was also present and gave us a lecture on the lack of interest taken by our

physicians in their county society; his talk was very impressive and should have been heard by every physician in Hart county.

The following interesting papers were read and discussed by all present, every paper on the program being read:

"Typhoid Fever, Report of a Case," Dr. T. H. Garvin, Horse Cave.

"Utility of Medicine," Dr. P. C. Sutphin, Canmer.

"Scrofula and Its Treatment," Dr. H. C. Bruner, Hardyville.

"Tips on Practice," Dr. A. C. Baldock, Hinesdale.

"Calabar Bean in Tetanus," Dr. C. J. Walton, Munfordsville.

One of the most interesting subjects discussed was the pauper practice of Hart county.

Five or six years ago the magistrates of this county found out we had some cheap doctors among us, so they made an order allowing a physician for attention to paupers by order of attendance, 75 cents for the first mile and 15 cents for every mile thereafter, including medicines for patient.

After a thorough discussion the conclusion was reached that a cheap doctor usually received all that his services were worth, small charge, little good done.

I am glad to report that most of our physicians are beginning to demand what is justly due them, and in a short time I hope to see some case tested in our courts, and our doctors paid a reasonable compensation for their services.

J. J. ADAMS, Sec'y.

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The *McCracken County Medical Society* has been holding regular meetings every two weeks since last fall, and has carried out the program arranged by Program Committee for the winter's work. Much interest has been manifested and a good attendance had at all the meetings.

At the last regular meeting, held April 12, the society listened to most excellent papers by Dr. C. E. Purcell and H. P. Sights, their subjects being, "Education Preliminary to Medical Education," and "Intestinal Obstruction." Both of the essayists handled their subjects in a way entirely creditable to themselves.

At this meeting, Dr. W. W. Richmond, of Clinton, Ky., First District Councillor, was present and made a fine talk on Medical Organization. Dr. Richmond is deservedly popular in Western Kentucky as he is everywhere he is known, and never fails to meet a warm welcome among Paducah doctors. Drs. Thomas, Stilley and Stone, of Marshall

county, and Dr. Hahs, of Ballard county, were also present at this meeting. A committee composed of Drs. Holland, Kimbrough and Young was appointed to arrange a program for the summer's work. The society holds monthly meetings in the county during the summer months.

RIVERSIDE HOSPITAL.

Paducah has just completed a new city hospital at a cost of about \$27,000. The building is an imposing structure of two stories, (with large basement,) of pleasing architecture, occupying a beautiful site, with ample grounds, overlooking the broad bosom of the Ohio river and within five squares of the city's business center. The building has been equipped with its own heating plant and ample facilities for electric and gas lighting. The operating room is a "dream" and cannot fail to excite the admiration of any doctor. Beautiful lavatories and bath rooms with tarazza floors and marble wainscoting constitute a special feature of the building. Several wealthy citizens have already signified their intention of furnishing some of the wards and private rooms.

The physicians of Paducah have been deeply interested in this hospital, as the old city hospital was built about twenty-five or thirty years ago and was entirely inadequate for the demands of modern medicine and surgery. It was largely through the instrumentality and work of our physicians that the bond issue was voted for building hospital. Drs. Frank Boyd and J. D. Robertson are the medical members of the new hospital board and they will look well to the furnishing of the hospital in an up-to-date manner, as they will both give it their special attention. Dr. Boyd is especially well qualified along this line, having had much experience.

Dr. John G. Brooks, ex-president of the Kentucky State Medical Society, was a member of the city council many years ago when the old hospital was built, and was again elected a member of the city council a few years ago, and went to work at once for a new hospital, and never ceased his exertions until the completion of the new hospital. He may well be called the "Father of the new hospital," and in appreciation of his efforts the McCracken County Medical Society at its last meeting appointed a committee to secure Dr. Brooks' portrait and place it in Riverside Hospital.

J. T. REDDICK, Sec'y.

KENTUCKY NOTES.

The Eighth Reunion of medical officers of the army and navy of the Confederacy will be held at the Scottish Rite Cathedral, Sixth and Walnut street, Louisville, Ky., June 14th, 15th and 16th, 1905.

The meetings will be called to order each morning at 10 o'clock. At noon each day luncheon will be served by the ladies committee, the afternoon session being called to order again at 2 o'clock.

A program of scientific and reminiscential papers has been provided which will be of great interest not only to the veterans but also to the sons and grandsons who have trod in the honorable professional steps of their fathers. This part of the affair is in charge of Dr. Deering J. Roberts, secretary, Nashville, Tenn.

From 8 to 10 o'clock on the evening of the first day (June 14th,) a reception will be tendered the medical veterans at the Masonic building, Fourth and Chestnut streets. The sponsors' ball occurs the same evening, so that those attending the reception can go directly from it to the ball.

On the upper floor of the Scottish Rite Cathedral, Sixth and Walnut streets, will be provided certain forms of refreshment, some of which are peculiar to the soil of Kentucky. Taken in moderation these will be found to cheer and add a zest to the social feature, and may even make some of the veterans feel inclined to take an active part in the sponsors' ball.

The local committees are under the following officers: General Medical Committee, Frank C. Wilson, chairman, F. T. Fort, secretary; Committee on Arrangements, R. Alexander Bate, chairman, W. O. Green secretary; Reception Committee, W. F. Bog-gess, chairman; Ladies Reception Committee, Mrs. John W. Beckley, chairman; Decoration Committee, Miss V. A. Taylor, chairman; Canteen Committee, John R. Wathen, chairman; Ambulance Committee, Samuel H. Garvin, chairman; Hospital Committee, J. T. Dunn, chairman.

The Ohio Valley Medical Association will meet in Henderson, Ky., on November 8th and 9th, 1905. Those who desire to contribute papers will please address Dr. Arch Dixon, Henderson, Ky., Chairman Committee of Arrangements.

The Kentucky Valley Medical Association will meet at Torrent, Ky., on June 22nd and 23rd. The date has been changed from June 15th and 17th on account of the meeting of the Confederate veterans in Louisville at that time.

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EXTRADURAL HEMORRHAGE — REPORT OF A CASE.*

By G. A. HENDON, M. D., Louisville, Ky.

The source of the blood is usually from the middle meningeal or some of its branches, or from one of the sinuses, and in rare cases from the internal carotid. The superior longitudinal and lateral sinuses are the ones most frequently injured on account of their situation. (Tillman Vol. III, P. 110.)

The purpose of this article, however, is to deal only with hemorrhages from the middle meningeal. With that object in view, it becomes necessary to note briefly the anatomy of the vessel. The middle meningeal artery is the largest branch of the internal maxillary. It comes off from that vessel as it lies between the sphenomandibular ligament and the ramus of the jaw, passes directly upwards to the forearm spinosum through which it enters the interior of the cranium. On entering the skull it ramifies between the bone and dura mater, supplying both structures. It first ascends for a short distance in a groove on the greater wing of the sphenoid and then divides into two branches, anterior and posterior.

The anterior passes upward in the groove on the greater wing of the sphenoid on to the parietal bone at its anterior inferior angle. At this spot the groove becomes deepened and often bridged over by a thin plate of bone, being converted for a quarter or half inch or more into a distinct canal.

The situation of the artery is here indicated on the exterior of the skull by a spot an inch and a half behind and an inch above the external angular process of the orbit. The anterior branch is continued along the anterior border of the parietal bone nearly as far as the superior longitudinal sinus, and gives off in its course, but especially posteriorly, large branches which ramify in an upward and backward direction, in grooves on the parietal bone.

The posterior branch passes backward over the squamous portion of the temporal bone behind the anterior branch. This branch and its collaterals extend upward as far as the longitudinal sinus and backward as far as the lateral sinus. (Morris' Anatomy, P. 493).

To the rupture of this vessel is, in the majority of cases, chargeable the presence of that

group of phenomena which characterize cerebral compression.

In this paper I shall endeavor to give a review of the literature to which I have access bearing upon this subject, the main object being to point out,

(1.) That focal signs are non-essential to the diagnosis;

(2.) That the site selected for opening the skull should be determined by the situation of the clot rather than the anatomical location of the arteria meningeal media. This point, however, is of minor importance because the two almost invariably coincide.

(3.) To advance the opinion borrowed from Plummer (A. S. Vol. 36, P. 591), that the Hartley-Krause incision and osteoplastic flap should be the means of choice in treating these injuries.

(4.) That ligation of the bleeding vessel is not a practical procedure, unless the site of its rupture be easily perceptible and accessible, or in other words, unless we are able to perform ligation in locus lesions instead of in continuity.

(5.) That controlling the hemorrhage by gauze pack is safe, efficient and easy of application, and as a matter of fact is the procedure that is followed in the preponderating majority of cases, notwithstanding the valid objections that can be urged against it.

(6.) To advise against the too early removal of the gauze, which in the absence of untoward symptoms should remain at least five or six days. (120-144 hours).

(7.) To review briefly some remote effects of head injury.

CLINICAL HISTORY. There is always some form of trauma. The trauma in some cases may have been insufficient to cause even a gross contusion of the scalp, or it may have been great enough to have caused extensive injury both to the skin and bony parts of the cranium.

In the absence of gross lesions to the cranial structures, the common narrative is that the patient was knocked down by some violence and though stunned was able to regain his feet. There then ensues a period of variable length during which the injured person may be to all appearances in a condition closely approaching normal. He may move about or rest quietly as if nothing had occurred. The duration of this quiescent period is of sufficient length to allow the accumulation of a clot

* Read before Jefferson County Medical Society, February 21, 1905.

and depends on the size of the vessel wounded. As the coagulation increases in dimensions it inaugurates the stage of irritation which is manifested by a delirium, in which is represented all the different degrees of excitement.

The stage of irritation is now succeeded in a short time by the third and last which is coma.

The symptoms, diagnosis and treatment can be best described by reviewing cases from the current literature. For that purpose I have selected five recorded cases and report one case that came under my own care.

SYMPTOMS ILLUSTRATED BY EXTRACT FROM REPORTS OF CASES.

Case I. Jopson. (A. S., Vol. 37, P. 341.) Injury on right side, post parietal region; small laceration not extending to bone, around and above which was considerable haematoma. Palpation gave distinct sense of depression in underlying bone; no paralysis of face or limbs; pupils equally contracted; vomited freely. Patient reacted well from shock; pulse dropped from 120 on evening of injury to 76 next day; temperature ranged from 100 to 101.2-5; mental condition dull, delirious at night, roused with difficulty. Haematoma continued to increase in size. Four days after injury after bad night pulse dropped to 48. Operated at once. Depression above and behind right ear three-fourths of an inch in diameter; fissure several inches in length parallel to median line; extradural clot which was three-fourths of an inch thick and two and a half inches wide; bleeding controlled by packing; symptoms all abated; patient stupid several days but regained mental faculties; four days later packing removed; repacked lightly. Recovery.

Case II. Patient struck on left side of head by piece of cable in the morning. Did not lose or soon regained consciousness; walked around till several hours later; became unconscious and was carried to hospital; contusion and haematoma marking injury; temperature 96; pulse 48, respiration 24, irregular; pupils reacting; protrusion of left eye ball and oedema of lid; partial paresis of right side. Trephined, no fracture discovered; extradural clot revealed artery spurting in the wound; attempt to tie the artery unsuccessful; hemorrhage controlled by gauze pressure. Trephine opening was made two fingers' breadth behind external angular process and three fingers' breadth above zygoma. Recovered in two weeks.

Case III. Patient struck by trolley car. Unconscious when picked up; semi-conscious when admitted; soon afterward became unconscious; vomited freely. Ten minutes later had a convulsion preceded by twitching of

right side of face, right arm and leg; lasted 15 minutes. Had another convulsion while being prepared for operation; external strabismus of left eye; pupils equal and contracted; breathing stertorous; pulse 104, temperature normal; contusion in left supra-orbital region. Right side of face paralyzed. Trephines over middle meningeal artery. No clot found. Symptoms rapidly ameliorated after operation. Discharged cured.

Case IV. (Plummer Anna's Surgery, Vol. 36, P. 600.) Man injured by falling 20 feet. One hour later became unconscious. When seen five hours later had compression pulse; stertorous breathing, left hemiplegia. History of free interval and spasm preceding hemiplegia. Slight swelling in right temporal region; pupils equal, medium dilatation; temperature 101.5. Operation five hours after injury by Hartley-Krause incision; middle meningeal ruptured in turning back flap; squamous portion of temporal bone showed, linear fracture; artery ligated, extradural clot revealed. Bleeding continued notwithstanding ligation of vessel; controlled by gauze pack. During operation temperature rose to 107. Removal of clot caused no change in condition of patient who died three hours later. Autopsy revealed fracture of base and hemorrhage in fourth ventricle.

Case V. Patient fell eight and a half feet, became immediately unconscious. Three quarters of an hour after injury became partially conscious, then lapsed again into complete unconsciousness; paresis of left arm and leg. Pulse slow, pupils equal. No fracture could be made out; no wound or contusion of soft parts. Operation by Hartley-Krause flap. When flap was turned down, anterior branch of middle meningeal ruptured and ligated. Haematoma discovered at upper and posterior part of exposed area. Enlargement of incision upward and backward brought to view linear fracture of parietal bone two inches long. Hemorrhage controlled by packing. Recovery.

My own case was as followed. Referred by Dr. Thixton. E. O. B., male, aet. 36, seen at 6 p. m., July 17, 1904. Following history. On the evening of July 16th, about 10 p. m., was assaulted, struck on the left side of the head with a boulder. Patient was felled to the ground, but did not become unconscious. Walked to a neighboring dispensary and had the scalp wound dressed; walked home a distance of seven squares and soon afterward became delirious and continued in delirium until 4 a. m., when he became quiet and lapsed into coma.

I saw him at 6 p. m. the same day. Found a fairly muscular individual with jagged, irregular scalp wound over left parietal emin-

ence an inch and a half long. Patient in coma, pulse 48, temperature, axillary, 100 F, respiration stertorous, about 24. Had him immediately removed to Gray Street Infirmary and began operation at 8 p. m., assisted by Dr. Farmer. Thephined and removed button seven-eighths of an inch in diameter. The opening revealed a clot occupying the middle fossa and reaching forward to the orbital plate of the frontal bone and back to the occiput. There also appeared a fissure running from behind the parietal eminence forward through the squamous portion of the temporal, turned and came backward an inch lower down to almost its origin. There was no depression.

My trephine opening proving inefficient to enable me to reach the circumference of the clot, the wound was enlarged upward and forward with Rongeur forceps until I was able to remove all of the extravasated blood. Hemorrhage was now profuse and the field obscured by the flow of blood which welled faster than my assistant could sponge it away. Consequently all efforts to locate the locus lesions proved futile. Bleeding was successfully controlled by packing with gauze strips. As much of the scalp wound as possible was approximated with silk worm gut sutures and patient put to bed in fairly good condition.

Next morning considerable improvement in intellection and other symptoms was noted. Patient was rational but stupid; dressings soaked with blood; wound redressed without disturbing pack. Ordered calomel and enema. Improvement continued uninterrupted the next day; pulse 60, temperature 99 F.

On Wednesday morning, 60 hours after the operation, a portion of the gauze pack was removed and was followed by a furious hemorrhage. The gauze had to be replaced and bandage drawn tightly around the head to assist in controlling the hemorrhage. The patient was profoundly shocked and suffered both by loss of blood and the manipulation of the cranial contents. (The dura was uninjured.) Patient reacted slowly and was stupid and irrational for the next twenty-four hours. The next morning I had him removed to the operating room and anaesthetized intending to make an osteoplastic flap by the Hartley-Krause incision and thereby made an effort to ligate the bleeding vessel in lesion. My object in doing this was because I feared when it became necessary to remove the intracranial tampon I would have a repetition of my experience of the day before. Second, I was not satisfied the bleeding was thoroughly controlled as oozing through the dressings was still apparent. Before commencing the operation the pack was cautiously removed and to my surprise the hemorrhage did not amount

to a dram. Patient was put to bed without any further surgery and went rapidly on to recovery.

I copy the following notes from my case book:

August 1. Patient shows steady improvement, wound granulating; still suffers some incoordination of ideas and is not quite distinct in articulation; seems to show more buoyancy of spirits than his surroundings would warrant; was allowed to go out and sit in the yard to-day for the first time. Appetite especially good and sleeps well.

Aug. 3rd. Eighteen days from operation; went home; seemingly some lack of power on right side of face; right eye stares a little.

Aug. 8th. Face shows lateral symmetry except a little staring expression in the right eye. Otherwise he seems normal.

The deductions to be obtained from the preceding review of five cases and the report of a single case, are: First, in regard to symptoms. Pulse. In two of the Jopson cases it was 48; in the third which was trephined and no clot found and the diagnosis amended to cortical laceration, the pulse was 104. In case No. 1. of the Plummer series there was "compression pulse." Case 2 of the same series, 45 minutes after the injury the pulse was 82; two hours after injury it was 64; five hours after it was 52. (characteristic full compression pulse). In my case 20 hours after injury the pulse was 48, full and strong.

Temperature. In case I of the Plummer series, which was an extradural hemorrhage complicated by hemorrhage into fourth ventricle, the temperature five hours after injury was 101.5 F. During the operation it rose in the rectum to 104. At close of operation it was 107.

Focal Signs. I quote again from case I of the Jopson series. The pupils were equal and contracted. There was no paralysis. Case II (Ibid) decided partial paresis. Case III (Ibid) trephined but no clot found. Had convulsions on opposite side to injury. Case I of the Plummer series had contra-lateral hemiplegia preceded by convulsions. This case was complicated by hemorrhage into fourth ventricle. Case II (Ibid) paresis of side opposite to injury. This case had no fracture, no wound or contusion of soft parts large extradural clot was found. My own case had no focal symptoms.

Period of incubation of clot. The length of this period depends on whether the main trunk or one of the small branches is ruptured.

Case I of the Plummer series. One hour elapsed before coma supervened. There was no period of irritation. Operation revealed

rupture of anterior or principal branch of the arterio meningeal media. Case II, (Ibid) became immediately unconscious (concussion). Three-quarters of an hour after injury became partially conscious and could answer questions. Five hours after injury he showed the true symptoms of compression. In this case hemorrhage was from a terminal branch of the meningeal. In the Jopson series Case I did not lose consciousness until four days after the injury. This long period is accounted for by the fact that blood escaped through a fissure of the skull and extravasated beneath the scalp. Case II went "several hours." Case II proved to be one of contusion. Unconsciousness supervened immediately on receipt of injury and remained so five minutes and revived to a semi-stupor, later became totally unconscious. In my own case six hours elapsed before coma appeared. Four hours of the period, however, was occupied by a stage of irritation.

As shown here the signs of greatest importance are (1), the existence of a period of consciousness succeeding the injury; (2), the slow full pulse. Focal signs are of positive value only and when associated with convulsions point to injury of the brain tissue itself or hemorrhage into the ventricle. Regarding focal symptoms, Taylor, *Annals Surgery* (Vol 37, P. 453), reports a case of a man giving a typical history, who when seen was paralyzed on one side and had convulsions on the other. He had but one eye, so it was impossible to compare the pupils. A trephine opening was made on the side opposite the paralysis and no clot was found. The other side was then opened and the clot located and removed. The man never regained consciousness and died. It was learned afterward that he had been paralyzed on one side before the accident.

Location of the clot. With the history of injury and the presence of the foregoing symptoms it rarely becomes difficult to determine the presence of an extra-dural clot, "although we have to think of concussion, contusion, apoplectic foci, acute alcoholism and other drug stupors, also uremia and kindred affections." When the presence of clot is made manifest the first consideration is which side is it on? This question may prove embarrassing in the absence of hemiplegia or contusions on the surface. Even when the patient is hemiplegic the paralyzed side is distinguished with great difficulty in the presence of deep coma.

The fact that hemorrhage can occur on the side opposite the contusion, by *contra coup*, should not be forgotten.

After we satisfy ourselves as to which side the lesion is, the next question to arise is,

what portion of the brain is the subject of pressure. Plummer in his article A. S. (Vol. 36, P. 593), says, "To Kronlein we owe a great deal in this connection—a point of considerable importance when it comes to locating and removing same."

Kronlein's division is diffuse and circumscribed clots. "The diffuse are of great extent covering almost the entire concavity of the affected area of the cranium." Of the circumscribed, they can be extensive but one part of the dura mater is always adherent to the concavity of the skull. These haematoma have a sharp border and are generally oval or circular in outline, their greatest thickness corresponding rather exactly to the center. Kronlein subdivides the circumscribed haematoma into three anatomical groups: haematoma median or temporo-parietal; haematoma posticum or parieto-occipital; haematoma anticum or fronto-temporal.

The hamatoma median is far the most frequent. This occupies the middle fossa of the skull and is bounded anteriorly by the lesser wing of the sphenoid and posteriorly by the petrous portion of the temporal bone, reaching inferiorly to near the forearm spinosum and superiorly frequently to or beyond the squamous suture. The greater frequency of this group is accounted for by the greater vulnerability of the temporal region and the richness of vessels in this region, including the main trunk, anterior and posterior branches of the arteria meningeal media.

The haematoma posticon is decidedly rare. This occupies the region below the parital eminence leaving the middle fossa quite free and reaching generally to the falx cerebri above, to the occipital protuberance behind and tentorium cerebelli below.

The haematoma anticum is the rarest of the three. This occupies principally the region of the frontal eminence, separating part of the dura mater from the orbital plate below and extending posteriorly to or beyond the anterior inferior angle of the parietal bone.

This classification, however, is purely of scientific importance, for we have no means of telling the exact situation of the clot; as Sir Astley Cooper has said, "I do not find any difference of symptoms produced by the different situations of the blood. Whatever the situation of the blood the symptom of compression is the same." There are, however, some guides proposed for the more definite location of the pressure, viz.: an isolated or very marked facial paralysis points to an extravasation low down anteriorly. Unilateral disturbance of sensibility points with great probability to haematoma posticum; disturbance of innervation of eye muscles is general-

ly due to direct lesion or pressure within the cranial cavity."

According to Weismann, when there is inequality of the pupils, the dilated one is on the side injured, but not invariably; choked disk if present is on the side of lesion.

Kronlein (quoted by Plummer) says, if the surgeon could see the case from the time of injury and follow the development of symptoms and if the case were not complicated by concussion of the brain, contusion of the brain, apoplectic focus in the brain substance or acute alcoholism, then we could hope for more in the direction of topical diagnosis. But how seldom are all of these conditions fulfilled. In complicated cases without history the surgeon is glad to make a diagnosis in general or to know on which side to trephine. We think that in the preponderating majority of cases a further refinement of diagnosis is not to be thought of.

Plummer then arrives at the following conclusions; in the majority of cases we can determine upon which side the lesion is and nothing further as to its location.

Place of Opening Skull. The great majority of the haematoma can be reached by opening the skull in the temporal region at about the anterior inferior angle of the parietal bone; that the best site for opening the skull based on practical surgical consideration coincides with that best adapted for reaching the anterior branch of the middle meningeal artery; that the best method of reaching this region is by the Hartley-Krause flap, because it exposes clot and vessel better than any other and because the osteo-plastic flap leaves no bony defect.

Where to open the skull is a consideration of paramount importance. In the absence of depressed bone the decision should rest on practical surgical considerations rather than anatomical. Fortunately these two points as already noted coincide with each other. The anterior inferior angle of the temporal bone offers the most accessible region for the removal of the clot, at the same time being the anatomical situation of the arterio meningeal media. For gaining access to the cranial cavity in cases of extra-dural hemorrhage the Hartley Krause is recommended by Plummer, Steiner and Kronlein.

Plummer (A. S. Vol. 36, P. 591) reports two cases operated on by the osteo-plastic flap method and states that we have in it the only means of fulfilling all the requirements for an ideal exposure of the middle meningeal and its branches. Steiner concludes that this method possesses so great superiority that we have no use for the more defined location of other technique, except where some contraindication to the formation of the flap

is present. The contra-indications he mentions as compound fractures (such as in my case) or great injury to the soft part.

Tests were made by both Plummer and Steiner on the cadaver, and in every case the main trunk and the anterior and posterior branches of the middle meningeal were revealed by this incision, the anterior branch exceeding the posterior in importance. As an additional argument for this route to the interior of the cranium, according to Kronlein we have rendered accessible the diffuse haematoma, the circumscribed temporo-parietal, the fronto-parietal; only the parieto-occipital haematoma cannot be reached from the inferior angle of the parietal bone. It might be of interest to note in passing that Weismann has observed that frequently the center of the convexity of the clot corresponds rather closely to the site of rupture of the artery.

Evacuating the Clot. According to the views held by Weismann, Kronlein and Plummer, the prime object in entering the skull is removal of the clot (A. S. Vol. 36, P. 591). This can be accomplished after the cranium is opened with an ordinary teaspoon (Bryant) or with a stream of water from a syringe. (Neilson, A. S. Vol. 36, P. 454).

Controlling Hemorrhage. Kronlein says: "In cases of difficult diagnosis the hemorrhage has usually ceased at the time of operation. Ligation, tying the arteria meningeal media on the living subject is quite a different problem from that which we encounter in the dissecting room. When the hemorrhage is in progress the volume of blood is so great and the operating field is thereby so obscured that it is next to impossible to see the bleeding point even if the vessel is extensively deprived of its bony covering." Kronlein says (A. S. Vol. 36, P. 595). "In speaking of ligation in continuity, it could be of value only when the artery happened to be ruptured in the place of exposure and both ends could be tied. This would really be a ligation in locus lesionis, not a ligation in continuity. In all other cases ligation in continuity has no value. As I showed in 1882, a divided meningeal artery bleeds from both ends, so that its ligation in continuity could promise no absolute success." Weismann says, "There is no sense in ligating in continuity in the place of election after trephining. Plummer concludes in his article from which these references are copied: "We cannot but agree with these authorities that our first and most important and oftentimes our sole object in opening the skull is the removal of the clot which by its pressure is threatening the patient's life."

Ochsner in his work on clinical surgery has this to say in reference to the subject now in hand: "If the point of injury can be distinct-

ly located in the course of one of the principal branches of the middle meningeal artery, the point of operation can be determined in this manner. If this cannot be done it will become necessary to expose first one and then the other of the principal branches of this vessel, provided the first attempt fails; or it may be better to expose both branches at once by making an osteo-plastic resection of a portion of skull covering both the anterior and posterior branches of the middle meningeal".

Bryant (Operative Surgery Vol. I, P. 201) advises ligation of the external carotid in cases where the bleeding point cannot be located. Ligation of common carotid has proved too hazardous for practical application, only three cases having survived out of seven ligations of common carotid as reported from operations in the civil war (Til. Vol. 2, P. 109.) When the middle meningeal artery is encased in a bony canal as sometimes occurs, the advice is to plug the opening with ivory, nail, sterilized shoe pegs or cat gut.

The tampon fortunately offers us a safe and reliable expedient for emergencies in cases of difficult location of the bleeding point. The requisite amount of pressure can be obtained by gauze strips of convenient width and length carefully disposed between the calvarium and its contents.

The reports I have so far been able to examine testify to the competency of this method. The fact that the pressure thus imposed does not produce phenomena analogous to those of clot is due to the absence of the element of progression in the tamponade and which continues to flow after the tampon has been built is conducted by capillary attraction to the outside thereby preventing any increase of pressure.

I would have it understood that I do not hold up the tampon as being the ideal means of meeting the indications of hemorrhage in this locality, but I do claim it is safer and more expedient than ligating some of the great arterial trunks in the neck, when the locus lesionis cannot be found and tied.

If we notice that five of the six cases here reported were packed to control the hemorrhage, we are bound to admit that this is the most practical expedient. Even in the case here reported of ligation, packing had to be resorted to. The plausible theory embodied in some of our text books, that to pack for intra-cranial hemorrhage is reprehensible because it merely serves to substitute one form of pressure for another, is clinically erroneous as proven by the reported cases; that as soon as the clot is removed and the patient recovers from the anaesthetic, symptoms of compression disappear, notwithstanding the presence of the gauze tampon.

The time or removal of the pack is a matter of importance. In the cases here reported the time of removal was the third or fourth day from the operation. This in the light of my personal experience is too short. I am convinced that in the absence of untoward symptoms the gauze could be left in situ for as much as six or seven days with perfect safety and far less liability to secondary hemorrhage when removed. In packing the wound careful record should be made of the number of strips used. Dr. J. C. DaCosta reported a case, (A. S., Vol. 37, P. 450), of extra-dural hemorrhage controlled by gauze pressure which healed by primary union except a small sinus. Ten days after operation patient became violently insane. Dr. DaCosta then became doubtful as to how many pieces of gauze he put into the wound. By means of a small probe he was able to secure a thread through the sinus and removed a piece of gauze twelve inches in length. The man recovered.

Remote Effects. In the proceedings of the German Surgical Congress of 1903, Prof. Bunge makes the following report of his observations on twenty-two cases of skull injury: 13 open cranial defects; 5 defects closed primarily; 3 closed by secondary operations; 1 defect closed spontaneously. The ultimate results were of the defects left open: 4 had traumatic epilepsy, 3 were well; 6 had various troubles, flashes of light, giddiness, headache, faintness. The troubles were worse when intra-cranial pressure was increased by coughing, bowing the head, etc.

Cases in which the defect was closed by implantation at time of operation. In none of these was there the slightest trouble. Cases of secondary closure of the defect. In one of these epilepsy was present before the injury and the operation had no effect thereon. In two cases symptoms were cured by the closure. The other cases were free of trouble. This report appears in the *Annals of Surgery*, (Vol 38, P. 898).

English in the *Lancet* for February, 1904, and abstracted in the *J. A. M. A.*, March 12, 1904, gives his observations on 300 cases of head injury with special reference to remote effects. His notes cover a period varying from one to twenty years after the accident. During that time 12 cases died and only one death could be charged as directly due to the accident and this patient had been in the asylum six years. Those were seen to suffer most who did not indulge in a sufficient period of mental rest after the injury. He finds that injurious effects are most likely to result during early life and old age. He also notices among other things a susceptibility to alcohol and inability to stand high tempera-

tures. For treatment he advises physical and mental rest and mercury. Those cases due to osteo-scleroses he advises trephining.

In view of the statistics of Profs. Bunge and English above quoted, the technique of closing the wound after operations on the skull becomes a matter of grave importance. Of thirteen cases left with cranial defect in Bunge's report only three were well at a remote period; four had traumatic epilepsy, and six had various disturbances of a lighter character.

This observation should enhance our respect for the measures now in vogue of attempting to replace the bony covering of the brain after injuries and operations.

Senn (Practical Surgery, P. 495) says in italics when referring to fractures of the skull "Every fragment even if completely detached must be saved and placed in proper position." On P. 496 (Ibid), is the following injunction also emphasized: "If the wound is a recent one every loose fragment should be temporarily removed and placed in a warm 2-10 per cent. solution of carbolic acid for disinfection during the time required in disinfecting the wound." The same author further affirms (Page 497), "If the wound remains aseptic every one of the fragments will retain its vitality and will take an active part in the restoration of the continuity of the skull. Defects owing to such injuries are often followed by serious consequences."

It then becomes apparent even to a casual observer that in dealing with extra-dural hemorrhage the osteo-plastic flap recommends itself by reason of the fact that it offers the best opportunity for a restoration of continuity on account of its attachment to the pericranium.

DISCUSSION.

Dr. W. O. Roberts: Dr. Hendon has gone over this subject so thoroughly that he has left very little for any of us to say. It has never been my fortune to operate on a case where the symptoms came on as late as four or five hours after the receipt of the injury. This case of Dr. Hendon's, if I understand him correctly (is unusual in the length of time elapsing before the onset of symptoms, showing that the vessel injured must have been a small one. Where we have to use many strips of gauze to control the hemorrhage it would be well to fasten them together, or make a note of them, so that there would be no possibility of overlooking a strip.

Dr. Vance: I think that we should always give these patients the benefit of the doubt and try to relieve them by operation. I have done a good many operations upon the skull. In those

cases that have extra-dural hemorrhages there is nearly always subdural hemorrhage with it. Oftentimes the symptoms are postponed a long time. I operated on a man nine weeks after the receipt of the injury which was from a base ball striking him on the side of the head just above the ear; he was rendered unconscious and was taken to a drug store and was afterwards sent home. He became irritable and passed into a typhoid state and nine weeks after the injury I was called to see him with Dr. Koehler, who had seen him the morning after the injury. The man was in a typhoid state and greatly emaciated. Upon opening the cranium we found that he had had an extra-dural and a sub-dural hemorrhage. Five weeks after the operation he was around and perfectly well.

I operated on another case five years after the injury was received and found the soot like remains of the clot. I could get no sense out of this boy at all. Finally I got a history from the mother that three years after the injury paralysis appeared and five years after the injury he had symptoms of epilepsy. He got better as soon as the operation was performed.

I do not believe anybody can put these pieces of bone back after they have been soaked in carbolic acid; I do not believe the osteo-plastic flaps can be used to advantage in these regions. Under an anaesthetic the brain is so engorged that these fragments cannot be put in place—the brain comes out so that they cannot be replaced; after the patient comes from under the anaesthetic they might be placed in.

In all my experience I have never seen any after effects from removal of a portion of the skull as described by Dr. Hendon; I have seen no epilepsy follow the operation, and so I think a good deal of this talk is fancy talk about putting the bones back and the osteo-plastic flaps. When we come to putting the bones back it is a horse of another color.

Dr. Abell: This is a very interesting paper. Dr. Hendon has pretty thoroughly covered the ground. I have tried the replacement of bone in fracture of the skull on three different occasions and had the embarrassment of removing them subsequently. I have given up and tried it no more and I feel like Dr. Vance that it is merely a loss of time and exposes the patient to the further danger of delay. In these instances I used the normal salt solution but the bones invariably had to be removed.

In one case, in which there was an extensive fracture of the base of the skull in front involving the frontal bone in which the supra-orbital plate was loosened but its periosteal attachment was perfect, this piece of bone became firm and gave the man no trouble; it is the only one in my experience.

I have had the pleasure of operating on several cases of extra-dural hemorrhage; the symp-

toms came on at different times—one came on as late as twenty-four hours, and in that connection I would like to report a case in the City Hospital some three years ago. This man had a subdural hemorrhage following a blow on the right side of the head; he was stunned and suffered from headache. He continued to work for the Louisville Gas Company for some three days; he afterwards had this stage of irritation and was treated for delirium tremens, and about the eighth or tenth day he came into the Hospital with subnormal temperature, pulse 48 to 50, respiration 14, dilated pupil on the right side, no evidence of injury to the skull. Upon opening the skull we found this subdural clot which had been there since the reception of the injury; the man recovered perfectly after it was removed. I do not believe we can use the osteo-plastic flap unless we have a clean case to begin with.

Dr. Wathen: I just want to call Dr. Vance's attention to something I saw in Senn's clinic; following an operation for osteomyelitis of the tibia he powdered in bone chips and said that they would fill in the bone that he had taken out; he uses it with success. From what I have seen of his work and what I have seen of others, it is like skin grafting—successful in the hands of a few men only. I do not believe that this replacement of the fragments of bone is as successful as they would lead us to believe.

Dr. Hendon, in closing: I have only to thank these gentlemen who have been kind enough to discuss this paper. I have nothing to add except that I agree with those gentlemen who have spoken in opposition to the implantation of the fragments of bone. I have thought, however, in suitable cases where there are no contra-indications and everything is nice and clean and there are no difficulties and obstacles, it would be well to try the osteoplastic flap. It has the advantage of not being dissected from the pericranium which will supply more nutrition than is afforded to the divided bone.

UTILITY OF MEDICINE.*

By P. C. SUTPHIN, Canmer, Ky.

Gentlemen:

The object of the present paper is to bring before your notice as briefly as the subject will admit of, what has ever been the rather "vexed question" of the Utility of Medicine.

Now entering upon this subject, it may be said, in the first place, that, as with all other questions, we find this also with its "two sides"—that is to say, some viewing it one way, and others in another, and, as it may be, quite a different way. There have always been those, for instance, who have held medicine in the highest esteem and confidence; attaching the greatest importance to it, or, as

in some cases, even placing a superstitious faith in it. Such has been this confidence in it that they have resorted to it in all cases of disease, however trivial in character; whilst others, again, have been so persistent in its use as to acquire what is known as the "drug habit"—a habit not unfrequently met with by physicians, and generally the cause of more or less trouble in the system, or it may be, sometimes; of actual disease itself.

It is thus that there have been some who, as just said, have always held medicine in the highest confidence and esteem; but whilst this is so, there have been others, on the other hand, who attach but little importance or value to it; or who, contending, it may be, with the poet, that

"Men are brought to worse distresses,

By taking physic than diseases,"

would accordingly, with Macbeth, only "throw physic to the dogs." In tracing history back, we have more or less mention of this latter class, notably, in the first place, that of the ancient Romans among whom, for several centuries no Roman of any standing would condescend to practice medicine; the art being in the hands of the freedmen, foreigners or slaves. Cato, in his enmity to the Greek physicians located at Rome, tried to get a decree from the Roman senate banishing them from the city. Pliny, though including medicine in his writings, was nevertheless in the habit of decrying the physicians, quoting among other things, an inscription on ancient tomb-stones—*turba se medicorum perisse*—or that the deceased had died from a multitude of doctors. Coming down to a later period, or the Sixteenth century, says Montaigne: "Order a purge for your brain; it will be better employed there than upon your stomach." One asking a Lacedaemonian what has made him live so long, he made answer, "The ignorance of physic." And the Emperor Adrian continually exclaimed when he was dying, that the crowd of physicians had killed him. Coming down to a still later period, according to Colton, physicians "have been tinkering at the human constitution four thousand years in order to cure as many diseases. It is true they have a thousand different prescriptions, but not a single remedy."

If time permitted, these quotations could be carried yet further, though from what has been said in those just read, it is seen that whilst medicine has always had its friends—so to speak—it has, at the same time, always had its enemies, and these not unfrequently among those of the most eminent rank of learning.

Thus a "two-sided question:" therefore, as before remarked of it, we next have the in-

* Read before the Hart County Medical Society, April 20, 1905.

quiry as to the cause of this. Why should a science so well known and studied, as well as practiced, for thousands of years, have ever had this diversity of opinion as regards its utility or value?

In answering this, two main reasons may be assigned for it: first, what has ever been the incertitude of medicine; second, its diverse systems and their changes.

In regard, in the first place, to the incertitude of medicine, this may be said to have been the rule with it rather throughout its career. Take the art, for instance, in the first historical mention that we have among the ancient Egyptians. As is known, medicine was practiced among these on the etiological basis that all disease was but so much infliction by Deity on the individual on account of the sin or sins, and sin therefore being the causative factor in all disease, so the main treatment of the latter, in connection with some secondary treatment of it by medicines, was by prayer, and other religious rites or intercessory ceremonies, to appease Heaven's wrath, and in this way to bring about the cure of the patient. It would naturally follow, in this view of the causation and treatment of disease, that medicine—as it was among this people—was in the hands of the priests, or ministers of religion; and thus practiced for the most part as a divine worship, there could be as would be supposed, but little certainty in it, looked at from a medical standpoint.

Thus briefly glancing at this practice, I notice next, medicine as we see this pursued by the Dogmatists and Empirics. These sects, we are told practiced medicine on opposite theories of treating disease, and whilst for a long time they represented the more exclusive and popular systems of practice, yet pursuing the art on opposite grounds, medicine could only thus have been placed in a dubious position, with neither system, in a per se way, presenting any certainty in it.

Passing from this brief notice of Dogmatism and Empiricism, I take up, in the next place, Methodism, founded by Asclepiades of Rome, and based on the theory that all disease was caused by a relaxed or constricted condition of the system, or a mixture of these two, and to be treated accordingly, with relaxants, or astringents, or a mixture of these, according to the nature of the case. As absurd as this system was, it soon threatened, in its popularity and patronage, to overrun both Dogmatism and Empiricism, the then prevailing medical systems of the day; whilst based upon false conceptions as to the causation and treatment of disease, it could have carried with it but little either of certainty or value.

Now leaving Methodism, I pass in the next and last place, to Chemical-Medicine of a later date, founded by Paracelsus. This system, based on the theory that all disease was of chemical origin, soon came rapidly to the front, and was hailed as a greatly advanced step in the progress of the medical art. Based as it was, however, on false pathogenetic ideas of disease, with consequent false treatment of it, so, as just said of Methodism, it could have possessed but little of any certainty or value as a system of medicine.

In order to illustrate the incertitude of medicine, I have brought into brief review the four more prominent systems of medicine just named; showing that for the many centuries, reckoning from the Egyptian, down to the chemical period—not to go any further—no system of medicine carried any certainty with it: while in some cases, they were only absurd, or, not unfrequently, adverse to the proper treatment of disease.

But whilst in its incertitude, thus, it has been held in the distrust, or it may be more or less contempt, by some, who have another reason for this, still, or, as before said, its diverse systems, with their changes. None of these has ever maintained its ground in any permanent way; and with their changes, therefore, often radical and opposite in character, many have regarded it unreliable, as having no unity of system, and founded on no permanent basis. Even at present, we have no unity of system in it, much of it being still speculative, or tentative, whilst it still has its variety of systems, such as the allopathic, homeopathic, eclectic, etc., presenting, as Renouard in his "History of Medicine" says, "The picture of a republic divided into many different factions," none destined to have any "lasting powers."

It is this instability of medicine, therefore, with its various systems and changes, that would seem to commit it to Lord Bacon's charge of "running in circles rather than progression," and which in its instability and want of unity of system even at present, shows it, as yet, in an unsettled state, and still not positive as to a science. It is this, in fact, with what has but too generally been its incertitude, that has led some medical men of eminence to hold it in distrust and to look upon it even with disfavor. Thus Sir Astley Cooper, the great English surgeon, declared it "founded on conjecture." Prof. Valentine Mott, the eminent American surgeon, pronounced it "of all science the most uncertain." Says Dr. Bailey, of London, "I have no faith whatever in medicine." Gould in his medical dictionary says: "In the science of medicine, what was true yesterday, may be only

half true to-day, or may be wholly untrue to-morrow."

Such quotations as these from eminent sources could be carried still further; though whilst they present a pessimistic view of medicine, and whilst the latter in its but too numerous systems, with their incertitude, has contributed no little to bring about this result; yet it must not be inferred, at the same time, that it has not had its good uses, or that in many cases, it has not been even of the highest utility. We take for instance, some of the more serious painful disorders—say, neuralgia of the heart, for one—in which it is known to be of the greatest value; its specific control of some diseases, such as malarial fevers and so on, of many other maladies in which it has proven of the highest importance and value.

Taking a more optimistic view of medicine, therefore, whilst it has been unstable in system and more or less confused and wanting in certainty as a science, it has nevertheless, as just said, had its good uses; nor has it been without its substantial progress. On the contrary, as Dr. Comegys in the preface of his translation of Renouard's History of Medicine remarks: "Whilst it is reproached with being stationary, and whilst society has been flooded with light on other topics; and whilst civilization has steadily advanced, and whilst it is claimed that medicine has contributed an inferior share to this progress, yet if we examine the great eras of civilization it will be found to have progressed as rapidly as the other physical sciences."

Now, whilst to some this may seem rather a broad claim as to the progress of medicine, yet if we inquire into the progress of our other more prominent sciences, we find this altogether true. It is true that medicine is yet more or less backward in its progress; that it has been unstable, and still of no unity of system, though how much better off in this respect are some of our other higher sciences? Take theology, for instance, or "the science that treats of divine things." How many different systems of this do we find? How many have been its changes? How much of it is still uncertain, as shown in its want of unity of system, and many different views of it? Of course, I do not say this as in any way derogatory to the great principles of Christianity, but only in a theological sense, as showing that, as to theology, at least this science has been no better off in its progress than medicine.

In the next place, take Government, or the "system of polity in a state," and how many have been its various systems, such as, the tribal, patriarchal, autocratic, monarchical, republican, or democratic—these its most noted

forms—take this, with its numerous systems and frequent changes of these, and we see nothing in the progress, certainty or stability of this, superior to what we see of the same in medicine.

Passing from this, we go, in the next place, to law; and who has not heard of its "glorious uncertainty." Who does not know of what has even been its numberless systems; of its fickleness and oft-repeated changes—change so oft and frequent, in fact, as to make it impossible to say what the law of to-day may be on to-morrow.

So taking these three of our most prominent sciences, not to mention others, then if medicine in its various systems, instability and incertitude, may on this account be said to be wanting in progress, or "running in circles rather than progression," what must be said, in this respect, of these and some of our higher sciences?

Suppose, however, we agree that medicine, as has been charged against it, is "stationary," or has been wanting in progress, then how is it, as regards this, with some of our other arts and sciences? Take the art of war, for instance, and who of our modern generals have surpassed, or excelled in this, Alexander or Caesar? How much have we advanced over the ancient Greeks in much of architecture, sculpture and painting? Egyptian embalming is still one of the "lost arts." In literature, the works of Homer, Virgil, Horace and other eminent ancient authors still stand unexcelled; whilst still more "stationary," has been oratory, since the days of Demosthenes and Cicero.

Whilst it is not pretended, therefore, that medicine, as before stated, is not still more or less backward, yet it seems, at least, as just quoted, "to have advanced as rapidly as the other physical sciences." In fact, there have been substantial gains in every department of it. Thus in anatomy, we have been made acquainted with the more minute structure of the human body, unknown to the ancients—information most important, as acquainting us with the organs more especially involved in disease, and to which, accordingly, more particularly to direct our treatment. In surgery, also, we have many valuable additions, in the way of important operations, rendered more safe and expeditious, and free of pain, by the use of anaesthetics. Pharmacy, also, has been greatly added to in the way of many efficient remedies, including some valuable specifics. In chemistry we have been furnished, by this, with some of our most potent combinations for treating disease; and in fact, every department of medicine, in its progress, has been greatly enriched by valuable additions to it.

TUBERCULOSIS—MEDICAL.

By W. C. USSERY, Paris, Ky.

The subject announced almost necessarily confines me to pulmonary tuberculosis. If there is any exclusive successful medical treatment for tuberculosis disease in other parts of the body I do not know what it is. I know that tubercular glands and joints and other things do get well under tonics, cod-liver oil, and the like; as just as many get well without anything, the result can not always be traced to the same cause. I do not propose to read a formal essay upon medical tuberculosis, with citations and references to the literature. Such things you have for yourselves, or can easily find if you desire. I shall merely jot down random thoughts as they occur and report from personal experience; the idea of Doe and Roe are recorded in a masterly manner. These impressions as they come to the general practitioner are, it seems to me, of most interest to a body of general practitioners.

Pulmonary tuberculosis—the great White Plague—is to-day, next to gonorrhea and syphilis, the one disease which is most threatening to mankind. Not only does it kill directly—slowly, perhaps, but with absolute certainty; in a second-hand way it has its influence on a dozen and one other diseases and increases their mortality. It is of frequent occurrence that I can trace a death which would otherwise not have happened to an underlying weakness due to a tubercular taint. During the present grip epidemic I have seen at least two deaths in adults from what I considered a tubercular pleurisy; I have resected one chest wall and tapped four others in previously healthy adults for a grip pleurisy. I believe every one of those cases is virulently tubercular, and that the disease was present before the grip brought it out.

The treatment of consumption should be like that of making a gentleman—let it begin with the patient's grand parents! with our present knowledge of the cause of consumption and the method of its spread, it is no idle dream to say that in 100 years—more or less—the disease can be absolutely stamped out. Do you suppose for a minute that if every acorn was destroyed immediately it fell from the tree, oaks would continue to grow? Were every baby destroyed immediately after it was born how long would the earth remain populated? Why it is chimerical to hope to annihilate consumption by destroying every tubercle bacillus as soon as it emerges from its host? They come from the mouth exclusively in pulmonary tuberculosis; why can't one

person, if he puts his mind to it, destroy every bit of sputum that comes from him? What is the need, except to gratify a habit and convenience, to spit on the street, on the floor, on a carpet, or anywhere, except in a receptacle which can be burned? A consumptive traveling up and down the land distributing his poison on all sides is more of a menace to the nation than half a dozen cases of smallpox roaming at will; some one who recognizes smallpox will eventually see the case and stop it with an ax if necessary, but who will prevent the consumptive from scattering his contagion here, there and everywhere?

Where is the law or authority to prevent the marriage of consumptives, yea, even death-bed marriages, if you please! I know personally of a case in which a tubercular girl was supposed to be dying; she, as well as her lover, desired to be married before the end. The ceremony was performed; she lived long enough to bring a puny baby into the world which is living to this day, but a sorry specimen of humanity it is; to poison the young husband who followed his wife to the grave: to infect her husband's mother, with whom she went to live, and that mother infected a previously healthy daughter who lived in another county. How much farther the chain extends I do not know. I personally appealed to the minister who performed the ceremony to dissuade them from the act; his reply was: "It is God's will that these two loving hearts be joined." I guess the preacher was right in that, as God undoubtedly put every living thing on earth, and in His eye a bacillus and a baby have an equal right to live.

A church burned several years ago, while a new one was being built, religious services were held in the county court room. I had occasion to attend court and had been nauseated by the dust and odor which came from the cocoa matting on the floor: how many generations had spat upon that matting I do not know. A patient of mine had three beautiful children; in answer to her inquiry I advised her to not send them to Sunday-school until the new church was completed: the advice was followed. When the minister inquired why the previously regular attendance was stopped the mother told him of my advice; he came to me and put this question: "Do you think the fact that those children will avoid a remote infection by staying away from Sunday-school is of more importance than the welfare of their eternal souls?" It was God's will that their church be destroyed, although an effective fire department would have thwarted things then and there, and God would protect those who had to change their place of worship. Fortunately

God also saw fit to burn that infernal court house, and thus destroy what I considered the greatest disseminator of disease I had ever seen.

A young lady in perfect health and from healthy stock, married a man from Colorado and went to that State to live. A brother of her husband who developed consumption while living in New York, came home for the benefit of the climate. That girl nursed him during the four months of his final illness and herself died of tuberculosis in less than two years; her baby has since died from tubercular peritonitis, after recovering from Potts' disease with a crippled hip and crooked back.

Where is the law which should have sent that consumptive to an isolation hospital and guarded his sputum and destroyed it like the poisonous thing it was?

The next most important thing in the treatment of consumption is its early recognition. Possibly the earlier noticeable symptom in most cases is cough—slight, insignificant and intermittent, possibly, but cough all the same. A "dry cough" if you please, or perhaps that so-called "stomach cough"—God save the name—which disappears when pepsin and warm weather are exhibited together. Go over that chest carefully; you may find nothing. You will, however, in all probability find a little prolongation of the murmur at an apex—no solidification as yet; that comes later when the case carries its own diagnosis as plain as day. Put it down that such a lung is tubercular; it may remain quiescent for years, but if the host does not die of another disease it will eventually show up.

A friend of mine in our high school days went to a Chicago specialist to be treated for a "stomach cough." He was told that in all probability his case was tuberculosis, as an uncle had died of the disease. A positive diagnosis could not be made, however, as it was before the days of the bacillus. At any rate his cough ceased and he was in apparently perfect health for ten years. After a residence of three years in Florida and Arizona. It was my sorrowful privilege to have that friend for my first patient after I had graduated from medical school, and carry him safely along to a consumptive's grave.

Now days we are better equipped to make a positive diagnosis in those doubtful cases of "winter stomach cough." Look for the tubercle bacillus. If there is no sputum, or nothing but froth, put a cover glass in the back part of the throat, held with long forceps, and let the patient cough against it; put a clean swab in the larynx after a paroxysm of coughing and make a cover-glass smear. If you don't find the bacillus the first or tenth time, look until you do find it. Its

presence compels a diagnosis of consumption; its persistent absence is a negative proposition only in so far that the diagnosis is robbed of its superlative positiveness.

Let me say in passing that it is no more trouble and takes but little more time to properly stain for the tubercle bacillus than to test the urine for sugar, albumen and specific gravity; the slide can be made ready for the microscope in fifteen minutes.

Another early symptom in a few cases is blood. Little insignificant specks it may be, or several drops of the real thing; there may be no physical signs and not much cough. I recall the case of a schoolmate—a next door neighbor. In our city school days he was as hearty and robust a youth as one could wish—the best runner, skater, ball player and all that. Yet, occasionally, after making a two or three base hit he would cough some and spit a little blood. It came from his throat of gums, the doctor said. His health continued apparently perfect for several years. A few weeks before we were to graduate from high school he, at 19 years of age, developed a cold and died in four months of quick consumption.

If you can't find an undoubted source for the blood in the mouth, nose or throat, look upon the case as suspicious at least; even though there is not the slightest physical sign and not a solitary bacillus.

The temperature is another important symptom; not so much an elevation of temperature to 99 degrees or more in the evening, as the same elevation preceded by a persistent sub-normal temperature in the morning. In many cases there is no decided temperature until the case is well established. Yet there is a case now and then in which a sub-normal morning temperature and a slight—possibly marked—elevation at night will be the symptom which throws the balance on the tuberculous side.

A man came to me six years ago complaining of a pain in his side, low down, near the rib border; also some bladder and urinary symptoms. He had no cough, no sputum and no especial discomfort except that occasional pain. I went over him thoroughly a number of times, expecting to find a kidney case. During the three weeks he was under my observation he volunteered the information that his temperature was often only 96 in the early morning. He kept a thermometer in the house to use on his children when they were complaining. I had him keep a record of the temperature for two weeks; there was a variation of from three to five degrees every day. I was not able to make a definite diagnosis.

Nearly one year afterward I heard in a social way that he was sleeping on his back

porch. Inquiry developed the fact that a Cincinnati physician told him he had tuberculosis. The past five years have been spent by him in sanatoria and health resorts, but he is now at home and in fair condition. There is no question as to his consumption, as he has the bacilli in his sputum, a laryngitis and every physical sign one could wish. It is a question with me whether or not the several months he lost through my failure to read that temperature curve correctly were not golden moments with him, and the only time he could hope for a permanent cure. He will die as it is, and that before very long. 'Tis only his sensible realization of his condition and intelligent application of treatment which has kept him alive this long. Several men of wide experience speak highly of the use of tuberculin as a diagnostic agent. I have never used it for that purpose, nor for any other. I would not allow it to be used on myself or my family where the diagnosis was in doubt, and I don't believe in doing to the man's family that which I would not do to my own.

The man, who, to my mind, speaks the most enthusiastically and sensibly about the use of tuberculin as a diagnostic agent hedges it about with so many safeguards and restrictions, puts so many qualifying clauses in and around it, that I cannot avoid being afraid of it. As I understand it, the agent cannot be intelligently used by a general practitioner, since so many observations must be made, and at such times, that for a man doing general work its intelligent use is out of the question. I mention it here only to condemn it, at least insofar as concerns the general physician.

As to the treatment of consumption: I believe the sum and substance of the whole thing can be expressed in two words—oxygen and assimilation. Of course symptoms must be met as they arise—cough, fever, night sweats, pain and the like. Yet the fact remains that these symptoms all disappear more rapidly under fresh air, sunshine and food than under any drug of which I have knowledge. I would not presume to write upon the medical treatment of consumption, because there is none; treatment of the many symptoms you know as well as I.

I do, however, wish to make a plea for fresh air and food. Even a suspicious case, make it sleep out of doors at night and stay out all day. Let it take cold if it wants to—it'll get over it and finally become accustomed to the new mode of living. The average case of consumption can be treated in its own back yard nearly as well as in the most expensive sanitarium, and it is the average cases which come to us. A man on a salary, with a fam-

ily depending on him, cannot go to the Adirondacks, to Colorado, Florida or Switzerland; nor is there great need that he do so. His own back yard or porch is at home ready for business, and in this great Blue Grass country there is more glorious air to the square inch than in any other spot on earth. This is also the land of beef, eggs, milk, butter, gravy and potatoes—no more or better things to eat can be found in Colorado, California or Kalamazoo.

A consumptive who works in the open air all day need be no more afraid of sleeping out of doors at night than of taking a drink of water. Let him use a tent in rainy weather; what if it does become cold—freezing or lower, more than one man has a frost-nipped nose or ears to show for his healthy lungs!

If a consumptive will go to the "climate" advise him to take off his "biled shirt" and high collar and stay away from the hotels and boarding houses. Go to the woods; lead an out-door life day and night. Don't expect the pure air of the mountains to cure unless it can get at the seat of disease; it will not do it if you sit around a hotel office by day and sleep in a steam-heated, unventilated room at night. Don't expect air and climate to cure your advanced cases, and above all, don't send them away from home; they will do better among friends and die much more happily.

PAST, PRESENT, AND A GLIMPSE OF THE FUTURE OF MEDICAL MEN AND SOCIETIES OF FLEMING COUNTY.

By C. R. GARR, M. D., Flemingsburg, Ky.

My first knowledge of Fleming county was in August, 1880. At that time there was a good, working medical society with such men as McDowell, Wall, Lightfoot, the Proctors and the elder Wallingford as its members. They met once a month, on county court day, over what is now Reynold's drug store. Papers were read that showed rare gifts of learning and would be a credit to-day if published in some medical journal. It is more than likely a medical society existed prior to this time, but as I have no knowledge of same I will simply confine myself to the last twenty-five years. I was often invited to attend or rather join, this society but to my shame I never became a member. My excuse was the same then as you have often heard not many years ago, that owing to the distance and professional engagements I did not have the time to attend a medical society. To me, it has been a lifetime regret that I should have disregarded this high privilege. It is possible I felt that I could not cope with these men of mature years in the discussion of the

various topics. Of course, I now realize this was not an excuse. If I could not have prepared a paper like McDowell, or discussed one like Wall, certainly I could have made an honest effort in that direction. The medical society at that time had few men that could talk with the eloquence of Paul, or read a medical thesis like Dr. Luke, yet, they made individual efforts, and you know an effort in the right direction covers a multitude of sins. Considering the time these men graduated, and the poor clinical instruction they received, I look back in amazement and wonder at their progress and success in life. The question naturally arises, "How did they accomplish these things?" They did it by long and persistent efforts, by being hard students ever ready to receive instruction. The many changes that took place during these long years of active practice made them diligent in acquiring knowledge. I want to emphasize the fact that the older men that have passed away were men of splendid ability. They would compare favorably with physicians of any county in the State. Many changes have taken place since my residence in the county. Many have changed locations, many have crossed over and joined the silent majority. Who could ever forget that genial, big-hearted, lovable McDowell? No one in the county was his peer in medicine or in literature. He was always, even up to the time of his death, a hard student.

He always manifested a kindly interest in the young physician and was always found lending a helping hand to bridge him over some of the rough places incident to young professional life. He was always found upon the right side of every moral question and had the courage of his conviction. No braver or truer Christian gentleman ever lived than Dr. Lucien McDowell. *"While he is dead, he yet liveth."* The seeds of love and words of wisdom will never die. *"Peace to his ashes."*

Who will ever forget the lamented Wall? His learning was of the highest order. He was a master in the science and art of medicine, and a gentleman of the old school.

Who will ever forget the charming personality of Lightfoot? His wonderful courage and courtesy carried him over many of the obstacles that he met during his long professional life. He was either a good friend or a bitter foe. There was no middle ground large enough for him to stand upon.

These are but a few of the men that were shining lights years ago. I have purposely left out a great number that are worthy of mention in this report, on account of lack of acquaintance or knowledge of them.

As to the present status of the profession in Fleming county and its medical society, I

think it will in a sense, compare favorably with the past. In so far as brain power is concerned, they are equal. Certainly our advantages are far in advance of theirs. We live in an age of discoveries whereby the hidden and dark problems that have baffled the skill of those men in the past have been made plain to us. The use of the microscope has revealed germs that were never heard or thought of before. It has been demonstrated beyond a doubt that hernia, appendicitis, and many other new surgical diseases, are curable by operation. With all these advantages, why is it we have not made progress in keeping with the times? In answer to this question, will say that we are not putting forth the individual efforts that the men of the past did. We seem to be in a state of lethargy, a state of inertia. We are sitting back and making no efforts to higher attainments. We expect nothing but the crumbs that are falling from the tables of men who are burning midnight oil working out the difficult problems.

As indicated above, we have the mental power, now let each of us put it into action and try to accomplish something before this year will have closed. Osler says that a man has reached his climax at forty, and at sixty he should be chloroformed. If this be true, some of us will have reached the time limit not many years hence.

I believe the great majority of the physicians of this country are dependent upon practice of medicine for a living. Their individual knowledge of medicine is their capital stock. It is possible we are watering our stock by lack of study and application? If it is true, we are not only injuring ourselves, but the poor, misguided, suffering humanity who unfortunately falls into our hands. If these men in the past could maintain a good working society, what is in our way? In the first place, what is the object of a medical society? First, the main object is the diffusion of knowledge that has been gained in the school of experience. Second, the social feature can not be denied as being helpful to one and all. Some of us may not be gifted in throwing much light on bacteriology, or in making original investigations along the various lines of medical sciences, or getting at the true physiological function of the ductless glands, yet there are many things in which we are proficient and could impart to others, things that are needed every day in the storehouse of medical knowledge. I have often thought the reason why so few papers have been read in this society is because some great, burning truths could not be told. My judgment is that we are more deficient in the little things that pertain to medicine than

otherwise. The little things, then, are what we are after. A thorough knowledge of them should be desired by one and all. In fact, without them we should not expect to accomplish much in life. With them, there is neither "Principality or power, or things present or things to come, or any other creature that could separate us from"—Success.

The social feature of the medical society is one of edification to me. It brings us close together; it brings about a fraternal fellowship that could not possibly exist otherwise. It is here we meet upon a common level and discuss the many perplexing questions that arise from time to time. It is here we come for help and sympathy. Then, let us all lend a helping hand to one another and wish from the heart "*God speed*" to one and all in the discharge of these duties.

The question has often been asked, "Why is it that physicians, as a rule, are jealous of each other and don't get along well with those living in the same town or city?" My answer is that ninety-nine times out of a hundred, it is not the fault of the physician but of our patients and others who often misrepresent us in what we say. They often in their eagerness to do something for us, overstep the bounds of propriety in trying to advance our interest. If the physicians were left alone by these wingless, godless creatures, there would be peace supreme in our ranks. Again, these little differences would vanish in thin air if we would get better acquainted with each other and pay no attention to idle gossip.

Now to go back to the original discussion, what is in our way of making this society one of the best in the State? One of the main reasons is a lack of enthusiasm of its members. No medical society has a long life before it unless its members are dead in love with it and are willing to make many sacrifices for its welfare. Regular attendance at its various meetings is essential to its success. We are all acquainted with the many difficulties that come up from time to time, especially during the winter months, with our country members. The distance, the condition of the weather, sickness, all militate against their regular attendance. While this is true at times, certainly it should not occur every time. In my opinion, the President should appoint a sufficient number at each meeting to prepare papers for the next meeting. These papers should be sent to the society at least ten days before the meeting, and the Secretary should be instructed to notify each member of the society of the topics for discussion. In case any of the members appointed should be absent, these papers could be read by the secretary. By so doing, we

would infuse new life into our society and members who came from a distance would not be disappointed. I believe it would be of interest to have a shorthand reporter present to take down what each individual member has to say in the discussion of the various topics, then have a typewritten report to be filed with said paper. Some one has suggested that we meet in the various towns of the county. Whether this is best or not, I will leave to the good judgment of its members. To speak of the future is, in a sense, speculative; but in another it is not. We can only judge the future destiny of a man by his present condition, at least, that is the estimate the world puts upon him. I am not unmindful of the fact that many improve as they grow older, as well as the fact that some reach a certain standard—they neither go up nor down; while some make splendid beginnings, but if they should live a century they would make no progress. So it is a difficult problem to always judge by the present. I think it fair to presume, however, that in this case we can. If medicine and surgery have made such rapid strides in the last quarter of a century, what will be their progress in the next ten or twenty years? Certainly, if this progress continues as in the past, many of our beliefs will have been swept overboard and landed in the quagmire of ignorance and superstition. Many difficult problems that have baffled the skill of the present scientists will have been solved; this would imply that many things are yet unsolved, yes, many. There are organs in our bodies of which we now only have a faint conception. Many diseases that are now thought to be incurable will be put upon the curable list. I look to the future to bring to light things that were never dreamed of and are thought at this time to be impossible. Most of us look to the cities or large medical centers for information along these various lines of medicine and surgery. We do not stop for a moment to ask ourselves "What advances are we making in the medical world?" Our opportunities may not be so good as our city brother's, yet, there are many things we have learned by experience that even our city brothers would be glad to know. Did it ever occur to you that some of the world's most renowned physicians and surgeons commenced the practice of medicine in some obscure country town? This fact should be a stimulus to our profession. We should have higher ideals and work to them, and always remember that our motto should be "Work; Onward to progress and success." If we do not, I believe there are young men who are now pursuing the study of medicine, or babes yet unborn that will make our faces burn

with shame at our ignorance, if we do not keep in line with the tidal wave that is sweeping over this country of our's.

CHRONIC URETHRITIS.*

By J. W. KINCAID, M. D., Catlettsburg, Ky.

Mr President and Gentlemen of the Society:

There is probably no condition which has inflicted more misery, pain, and suffering, both mental and physical, on innocent victims, than urethritis, due to the presence of the gonococcus, it having been said that 50 per cent. of the cases which come into the hands of the gynecologist have a gonorrhoeal origin.

This vast number of women who have suffered from suppurative diseases of the uterus and its appendages, or some of the various other forms of pelvic inflammation, which has condemned them to lives of sterility or semi-invalidism, stands in accusing ranks and demands at our hands the protection to which they are entitled and which it is largely in our power to extend if we give to the subject '*Chronic Urethritis*,' that attention and care which its importance demands.

I say chronic urethritis, because I believe that it is from that form of the disease that the greater number of cases are transmitted, owing to the prevalence of the opinion among the laity of the innocuousness of a gleet discharge.

There is probably no disease which may be attended by such dire consequences that receives so little attention, and in which so many hygienic rules both for his own safety as well as that of others are violated, by the patient. Nor is the profession blameless, for notwithstanding the fact that we realize the full import of the situation and the possibility of the various organs of the body becoming affected, some how or other when consulted by the young man with his first case, through sympathy and not wishing to add to his fright and misery we tell him he will soon have him all right, forgetting Ricord's axiomatic saying that "A clap begins and God alone knows when it will end," we caution him about his eyes, perhaps his testicles, and not a word as to the pure innocent girl who may some day become his wife. It is not strange then, under these circumstances, that the victim considers his trouble no worse than a bad cold, and especially if after a few days his discharge has been lessened, and his ardor urinae stopped, he then gives bridle to his passion and lets his lust run riot, only to find

out later that he who dances must pay the piper.

When a discharge has lasted for a period longer than two months, its continuance is due to the presence of a pathological lesion, and the case has drifted into a condition called chronic urethritis, which is defined by Fenger as the permanency of the mucous terminal stage in a circumscribed portion of the urethra, with recovery in other parts. Lydston embraces under chronic urethritis all phases of secretion-forming inflammation of the urethra generally included under the generic term of gleet.

The chief causes which may produce this condition are: Improper treatment of the acute stage by the use of excessively strong injections causing destruction of the epithelium; intemperance in both eating and drinking, but chiefly the latter; active exercise, or at least too little rest during the acute stage; sexual excesses and masturbation, or prolonged sexual excitement; unhealthy environment and general debility and relaxation attending other concomitant diseases; a narrow contracted meatus, localized acute inflammation, such as granulations and the penetration of the deeper glandular structure of the urethra by the gonococci, and finally stricture. The manner in which stricture is formed has no place in this paper, but when it is present, there are a few drops of urine left in the urethra posterior to it after each emptying of the bladder, which decomposes and sets up an inflammation with its corresponding discharge.

The character of the discharge is influenced by the location and depth of infiltration of the tissues involved. In the more recent cases it will be found of rather a thin muco-purulent sort, and in those which have lasted for a considerable period it may be nothing more than a "good morning" drop. In the latter form, however, there are periods of exacerbations, following alcoholic or sexual excesses, or horse back, or bicycle exercise. It may escape the notice of the patient entirely and only be seen floating in the urine in the form of shreds or strings which are called "Tripper faden," and are produced by the stream of urine passing over the diseased surface and rolling up with its current the desquamated epithelium and muco-purulent secretion of granular patches.

It is important for a successful treatment of the case, that the location of the affected area be determined as well as its character. For this purpose we use the two-glass test with the morning urine, which if carefully performed will generally differentiate between the anterior and posterior form. Localized spots of inflammation and stricture will be dis-

* Read before Central Tri-State Medical Society, April 20, 1905, at Huntington, W. Va.

closed by the use of graduated bulbous bougies, and the presence or absence of stricture in the same manner, or if preferred the urethrometer may be used. If there is a narrow meatus the latter instrument is required. Not every stenosis encountered in its withdrawal, when expanded should be called a stricture, because the dilatability of the part may be lessened by the infiltration and swelling of the mucus membrane rather than to connective tissue retraction and this is especially so in recent cases. Granulation areas can only be definitely determined by the use of the endoscope, which should be used much oftener than it is, both for purpose of diagnosis as well as treatment.

The question of the infectiousness of chronic urethritis has been answered differently at different times: the older writers for the most part holding that when the discharge had lost its purulent character, there was no danger of transmission. Since the investigation of Neisser and his discovery of the gonococcus which bears his name, it is generally believed that the danger of contagion is directly proportionate to the purulency of the discharge. As long as it contains pus corpuscles, although no gonococci may be found, it is capable of causing various pelvic troubles.

According to Dr. Bloom, of Louisville, as many as 95 per cent. of the cases infect the newly wedded wife. Fenger's requirements are that for a period of three or four weeks, daily examinations of the secretion and shreds, must show the absence of both gonococci and pus corpuscles, which opinion is accepted by numerous authorities.

The treatment is as varied as the causes which perpetuate the discharge. In those cases in which the secretion is abundant, daily irrigation by means of the Keifer nozzle or with a soft rubber catheter has been most efficacious in my hands, using Permanganate of Potash in the strength of 1 dram of the 4 per cent solution to a quart of water. In some instances this mild solution will have an irritant effect in which case a mild boric acid solution may be used instead, to be followed by hand injections of either protargol or argyrol in 10 per cent solution kept in the urethra for ten minutes.

If the disease is located in the bulbo-membranous, or prostatic portion of the urethra, deep installations with the Keys Ultzmann syringe of protargol or argyrol in 20 per cent. solution every second or third day will be followed by good results. However, if the deeper glandular tissues are involved, there is no treatment comparable to that with sounds used to the full size of the urethra, which in conjunction with massage will empty the fol-

licles. There is one point I wish to emphasize here, which is I think the cause of failure to effect a cure by the use of sounds, and that is posterior irrigation should be used immediately after the sound, to wash away the expressed contents of the follicles, and then local application of the remedy selected either through the endoscope or with the Ultzmann syringe. If you have to deal with granulation, the endoscope is indispensable, as by that means alone are you able to use remedies strong enough to destroy them, without doing damage elsewhere. The remedies most in use are those used for the same condition in the eye, viz.: nitrate of silver or sulphate of copper, in from three to ten per cent. solution applied on a cotton wrapped applicator.

I have recently preceded their use by Adrenalin with I believe good results. If the continuance of the discharge is dependent upon stricture our chief reliance must be dilatation, which is best effected by graduated sounds rather than forcible or rapid divulsion. If the meatus is contracted it must be incised so that a sound equal to the normal calibre of the urethra can be introduced.

In instrumental cases, I always administer either Urotropin or the Methylene Blue Co. capsule formula of Horwitz.

Attention must be paid to the general hygienic condition of the patient, the contents of the bowel kept in a soluble condition, and tonics calculated to tone up relaxed mucus membrane, such as tr. chloride of iron and hydrastis, given in those cases which clearly show the need of them.

PROGRESS OF DISEASES OF THE EYE, EAR, NOSE AND THROAT.

Under charge of ADOLPH O. PINGST, M. D., Louisville, Ky.

TIC DOULOUREUX AND OTHER NEURALGIAS FROM INTRANASAL AND ACCESSORY SINUS PRESSURES.

By SARGENT F. SNOW, M. D., Syracuse, N. Y.

(*New York Medical Journal*, Jan. 14, 1905.)

Tic douloureux, with its paroxysms, exists in the acute, subacute, and chronic forms, varying from sharp twinges to the three to five minutes seizures of supreme agony.

The acute form, as seen by the author, frequently accompanies a cold with sinus accumulation and passes away with abatement of the inflammation or by securing proper nasal drainage.

The subacute form may present an equal degree of pain, but does not clear up with the removal of nasal obstruction; it starts anew

upon slight provocation, showing us that a proper outlet must be made from an affected sinus or some nasal pressure demands relief.

With the chronic cases, any or all internal sinus morbid states from pus, granulations and polyps to diseased bone may be expected, and in these chronic cases a most patient, thorough clearing out is our only hope. Local sprays of systemic remedies aid only as they reduce congestion of nasal membranes, prevent bone softening, or improve the general health.

While Snow does not deny that dental caries may be the cause of some of the cases of tic, he has treated twenty chronic cases none of which came from this cause and in every one of which intra-nasal pressure or a collection within some of the sinuses was present. In all of these cases permanent relief was obtained by correcting the nasal condition.

The author also speaks of the cases of steady pain in the head, not involving the face, commonly known as migraine, arising from nasal pressure. He believes that the future will show that a large majority of all headaches depend upon immediate nasal pressure. These conditions may be due to temporary engorgement of the middle turbinate bodies which may be absent at the time of the intra-nasal examination. The turbinate body, innocent as it is when away from the septum, often becomes engorged when the subject is quiet or lies down and blocks the ventilation to the posterior portion of the passages. The author concludes as follows:

"That many cases of tic douloureux arise from intranasal and sinus pressures is without question. What exact percentage arises from such causes the author cannot state. Statistics for arriving at a definite figure seem hard to obtain. Personally I believe that 80 per cent. would be a modest estimate.

"In any event, we have good cause for suspecting and removing either intranasal or sinus pressure in all cases of facial or cranial neuralgia."

* * *

NASAL CONDITIONS DEPENDENT UPON THE GENERATIVE ORGANS.

By JUSTUS SINEXON, M. D., Philadelphia.

(*Medical News*, May 6, 1905.)

The author refers to the old belief that the size of an individual's nose is nearly always in proportion to the development of the generative organs. The connection was so intimate that the ancient Greeks were punished for adultery by cutting off the nose.

It is not a recent observation that the nose and throat prior to the advent of puberty differ from the naso-pharynx in the adult. In

children the nostrils are relatively much smaller than in adults, due in part to the temporary habit of mouth breathing during recreation, and to the fact that they have not learned the proper toilet of the nose. The mucous membrane of the nose and throat is decidedly less vascular during childhood than later in life. In children the absence of hairs in the nostrils is noticeable. The change in the tone of the voice, the growth of hair on the pubes and in the nose, as well as the development of the mammary glands in the female at puberty, are associated with increase in the vascularity and contractility of the erectile tissue of the turbinates. Many women show a regular turgescence of the mucous membranes of the nose during the menstrual period. In cases where oophorectomy or hysterectomy has been performed, the mucous membrane again returns to its infantile type. Hydrorrhea nasi occurring in women is frequently associated with menstruation, the condition disappearing entirely during the intervals of menstruation. Such cases occur in subjects with normal menstrual functions. Masturbation in children is in early years found associated with a baggy and thickened condition of the mucous membrane covering the turbinates. If the practice is persisted in, we later find an atropic rhinitis associated with defective sense of smell. Nasal reflexes, as sneezing, epistaxis, etc., are known to result from abuse of the physiological functions of the sexual organs or disturbances attending the advent of puberty, pregnancy or menopause, and chronic affections of the ovaries, uterus or menstrual irregularities.

Interesting cases have also been recorded where, in males and females, sneezing and coughing occur during the sexual act or even upon erotic thoughts. At such times engorgement of the nasal mucosa is the rule, causing obstructed respiration. In explanation of these conditions, the elevation of arterial tension and increased blood supply in the nose followed in a short time by paresis and engorgement, is offered. If the hyperemia be frequent, tissue production or a true hyperplasia results. The author sums up the following conclusions:

1. That turgescence of the nasal mucous membrane always occurs during the procreative act.

2. That there also exists a marked degree of hyperesthesia of the nasal mucous membrane at such times.

3. That a more or less marked periodical engorgement of the nasal mucosa occurs in females coincident with menstruation.

4. That this same engorgement also occurs periodically during pregnancy, demonstrating

that it is not dependent upon the menstrual flow.

5. That operations which destroy the function of the generative organs cause the nares to return to the state which existed prior to the advent of puberty.

6. That in lower animals sexual excitement is always accompanied by occlusion of the nares.

7. That this engorgement in the human family may result in epistaxis or hydrorrhea.

8. That the continued overstimulation of the nasal mucous membrane from sexual perversion results in a relaxation of the same through vasomotor paresis.

9. That the long-continued hypernutrition from frequent or inordinate congestion will in time produce permanent tissue changes either of hyperplasia or atrophica.

10. That these conditions are in no way dependent upon hysteria or neurasthenia."

* * *

OPTIC NEURITIS DURING LACTATION, INCLUDING A REFERENCE TO OTHER OCULAR CONDITIONS OBSERVED IN THIS PERIOD.

By GEORGE S. DERBY, M. D., Boston, Mass.

(*Archives of Ophthalmology*, January, 1905.)

Among the various ocular disturbances which have been inscribed to the influence of lactation, may be mentioned conjunctivitis, blepharitis, keratitis, choroiditis, iritis, retinitis, dacryocystitis, cataract and paralysis of some of the ocular muscles.

The author reports a case of loss of vision coming on during lactation in which the optic disc was found hyperemic, the veins engorged, the outlines blurred and the visual field contracted. The condition was present on only one eye and terminated in complete recovery of function and restoration of parts. Diagnosis of retro bulbar neuritis was made. The author also summarizes thirteen similar cases, some occurring in only one eye, others in both. The cases were characterized by frontal headache and the rapid progressive loss of vision. It is worthy of note that in the three monocular cases, retrobulbar neuritis existed while the binocular cases usually showed papillitis. In all of these cases the establishment of the milk secretion is regarded as the important factor in the production of the disease. Loss of vision is due to inflammation in the optic nerve. There may be a well marked papillitis, occasionally one of severity with extension of the process into the retina. In the retrobulbar cases, which are in the minority, there may be no visible signs of inflammation, although total blindness may exist. Visual disturbance varies in amount. The loss is rapid and may reach its lowest point in forty-eight hours or not for several weeks. The improve-

ment may also take place rapidly or extend over a period of several months. Strange to say, the vision bears no relationship to the severity of the process. Some of the cases showed a tendency to recur at each succeeding pregnancy.

Opinions differ widely as to the cause of the ocular disturbance during lactation. It is most likely that the milk suppression and the optic neuritis are dependent upon a common cause. Many theories have been advanced as to the cause, some believing that the process is purely of nervous origin, some assuming a bacterial origin and others that anemia results from lactation and that this accounts for the ocular involvement. The most accepted theory is that of an auto-intoxication, as suggested by Heinzl. He believed that there was an increased distinction of albuminous substance during lactation which entered into the formation of tox-albumens. Being in the dark as to the etiology of this obscure affection, treatment must be on general lines. Toxic substance should be eliminated from the body and the power of resistance. To this end weaning should be advised.

* * *

NASAL OBSTRUCTION AS A CAUSE OF DISORDERS OF NUTRITION.

By PERCY FRIDENBERG, M. D., New York.

(*New York Medical Journal*, April 22, 1905.)

The author suggests that more attention should be paid to the affection of the upper tract, particularly those associated with mouth breathing, as a causative factor of gastrintestinal disease and malnutrition. It is evident that interference with nasal breathing also interferes with the sense of smell, and indirectly with the sense of taste, appetite, mastication, etc. The sense of smell is important not only for the purposes mentioned but as a guard against deleterious elements and putrefactive changes in the nourishment. The inability to smell may blunt the sense of taste, causing lack of discrimination in diet. In children nasal obstruction is deleterious in two ways: by interfering with respiration and deglutition. The child at the breast which is forced to breathe through its mouth sucks spasmodically with frequent gasps for breath. These children, besides getting an insufficient amount of nourishment, also swallow considerable air with the milk and disturbances of digestion and nutrition result. These children as they grow older still bolt their food. Respiration taking place through the same portal as ingestion of food, breathing can take place only during the intervals between the gulping of food.

Kyle and others believe that nasal and nasopharyngeal disease may alter the chemical

condition of the saliva which may lead to malnutrition. Added to this the saliva or lubricant secretions are insufficient and abnormal to overcome the dryness due to mouth breathing. Deglutition is affected by two factors. The bolus being insufficiently masticated and moistened, is not as readily swallowed and the bolting of food, due to the necessity for getting air, causes disturbed esophageal action, hiccough, regurgitation, etc. These patients aid deglutition artificially by drinking water, thereby filling the stomach with diluted foods. The morbid process in the stomach, resulting from these conditions, may be further encouraged by the entrance of the products of purulent inflammation or mucus hypersecretion into the stomach from the nasa and naso-pharynx.

Fridenburg points out the fact that the removal of nasa-obstruction, adenoid or hypertrophied tonsils, although giving the possibilities of nose breathing in no way insure it. Prolonged and thorough mastication is suggested as an invaluable aid in establishing nasal respiration. Cold spraying, physical exercise and chin bandage at night is also advised.

* * *

A CASE OF EXTREME SEPSIS FROM MULTIPLE SINUSITIES WITH DESCRIPTION OF OPERATION.

By WILLIAM W. CARTER, A. M., M. D., New York.
(*New York Medical Journal*, May 27, 1905.)

A female of 22 years gave history of having had grippe four years previously, and a discharge of pus from right side for two years and from left side ever since. At intervals the left side of the face would become swollen, and at times the patient suffered severe occipital and vertical headaches. Examination revealed pus in left middle meatus and polypoid degeneration of the middle turbinate. Removal of portion of the middle turbinate and enlargement of the ostium maxillare, followed by daily irrigation, failed to show improvement and the radical operation was decided on. A broad opening was made into the canine fossa and the cavity, which was filled with pus and granulation tissue, was curetted. The inner wall down to the floor was also removed. The patient was apparently well until the third day when the larger joints became painful and swollen and sensitive to the touch. She complained of occipital headache and stiffness of the neck. Temperature ranged from 99 degrees to 103 degrees. The tongue was dry and brown, stomach irritable and bowels loose. The urine, previously normal, now contained a small amount of albumen and epithelial and hyaline casts. The condition of the antrum appeared to be satisfactory but it was evident

that the posterior ethmoidal cells (and possibly the sphenoidal) were infected. These conditions persisted for about three weeks during which there was a rapid loss of strength and emaciation. Five weeks after the operation the pain in the shoulders, elbow, knee and other joints was so great that the patient could not move. She had some pain in the eye, mental dullness was marked and the stiffness of the neck had increased. Temperature a few days later rose to 106 and 4-10 degrees, pulse 150, and the patient became unconscious. There was retention of urine, incontinence of feces and every appearance of profound collapse. She rallied under vigorous stimulation including saline injections and soon recovered sufficiently to stand a radical operation.

The patient was given gas-ether anaesthesia, the mouth gag was placed on the right side and the choana of the left side was closed by a post-nasal tampon. A stout silk ligature was then passed through the tongue near the tip, to be used in holding it forward during the operation, and a gauze pad placed between the cheek and the junction of the jaws, on the affected side, to prevent blood from flowing back into the pharynx. An assistant having drawn the cheek over as far as possible with a blunt retractor, an incision was made through the mucous membrane and periosteum, parallel to and just below the attachment of the cheek, and reaching from the posterior extremity of the alveolus to the anterior border of the canine fossa. The periosteum was then elevated with a periosteotome over the entire anterolateral wall of the antrum, and to within an eighth of an inch of the infero-orbital canal. With a rongeur this area was then resected, the fibrous tissue being first removed from the opening in the bone made at the first operation.

The mucous membrane of the antrum was found in a fairly normal condition, and this cavity was being well drained into the nose through the opening previously made. Using the attachment of the middle turbinate as a guide, the anterior and posterior ethmoid cells, which were necrotic and filled with pus and granulation tissue, were curetted away. All blood, pus and necrotic tissue were carefully wiped away, and the field made bloodless by packing the cavity with gauze soaked in adrenalin solution 1 to 1000. The opening into the sphenoid could now be clearly seen; a posterior ethmoid cell opening directly into it the anterior wall of this cavity was removed down to the floor, it was necrotic and yielded readily to the curette. This sinus was also filled with pus and granulation tissue. After washing away all debris and again packing the cavity with adrenalin

gauze to stop the capillary oozing, I could readily inspect the entire operative field. Then the rough spicules of bone were smoothed down, the cavity washed out with normal saline solution, and a wick of iodoform gauze inserted into the sphenoid and the remainder of the wound packed lightly with the same material. The operation consumed one hour and ten minutes.

Following the operation a gradual improvement in all symptoms was noted and the patient was able to leave the hospital in twenty-five days. At that time the joints were still stiff and the legs oedematous. This disappeared later, the patient regaining perfect health.

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THE DUNBAR ANTITOXINE METHOD OF TREATING HAY FEVER.

By OTTO J. STEIN, M. D., Chicago.

(*Medicine*, April, 1905.)

Based upon extensive experiments, Dunbar has been convinced that hay fever is produced by a toxin found in the pollen of certain grasses and plants, and that to be effective the toxine must be exhibited in a predisposing individual. By following the lines carried out in the development of antitoxin in other diseases, Dunbar obtained a serum which would neutralize the hay fever toxin.

The preparation is on the market in form of serum and powder, the former to be used by applying to the nostrils direct or by instilling into the eyes, and the latter to be used with a powder blower or by sniffing it up the nostrils. It seems that the best results are obtained by employing the remedy before the onset of an attack, and that the desired effect is not obtained when the remedy is employed when the disease has been fully established. When used late, however, it modifies the severity of the attack. The author reports twenty-six cases treated with the serum all of which, with the exception of two, were benefited by the treatment. The serum acted more rapidly than the powder in most of the cases but has the disadvantage of being a more unstable preparation. It was employed in strength of 1 to 100,000, a drop being instilled into each eye. Occasionally the serum causes conjunctival irritation characterized by marked redness and swelling. In the absence of these symptoms, a stronger solution, 1 to 10,000 can be employed fifteen minutes after the first instillation and at the same time an application made to the nasal mucous membranes.

PROGRESS IN DISEASES OF THE NERVOUS SYSTEM.

Under Charge of B. F. ZIMMERMAN, M. D.,
Louisville, Ky.

TUMOR OF THE RIGHT CAUDATE NUCLEUS AND FRONTAL LOBE.

The frontal lobe is regarded as a "silent area" and the corpus striatum as a vestigial body. Local symptoms do not occur in tumors of this region. There are, however, peculiar mental symptoms and a change of character that will enable a diagnosis of tumor of this region to be made in some cases. The symptoms are produced by an "interference with inhibition, with attention, and with judgment, which are probably the highest functions of the brain, rendering man pre-eminent amongst living creatures." In this case the chief points in the symptomatology were headache, giddiness, loss of memory, loss of modesty and sense of decency, slight paresis of left lower face, arm and leg, listlessness and apathy, slow pulse, normal temperature, and tenderness over right frontal area. The mental apathy and moral change come on early and before the evidences of marked intracranial pressure are apparent. Autopsy showed a glioma sarcoma of the right caudate nucleus and frontal lobe.—(*Lancet*).

* * *

NERVOUS DISORDERS OF CHRONIC NEPHRITIS.

Chronic nephritis is so insidious in its onset that it is often overlooked, slight functional disturbance of the viscera and nervous system having been ignored. The nervous disorders are many and varied, ranging from slight functional disturbances to gross organic disease. They are due to toxemia and to arterial degeneration affecting the cerebral nutrition. The symptoms are usually cerebral in character. Various cephalic parasthesias may be complained of—headache, fullness, pressure, throbbing, etc. Headache is often persistent and annoying. True migraine sometimes develops. Uremic vomiting associated with the headache may lead to a suspicion of brain tumor. Neuralgic pains and cutaneous hyperaesthesia are not uncommon. Special senses are affected, especially vision. Bilateral amblyopia or complete blindness may develop suddenly and may change rapidly. The pupillary reflex usually remains intact, and when it fails the optic nerve or primary ganglion is involved. Disturbances of hearing are also encountered. These disorders are frequently uremic in origin. Muscular twitching usually precedes convulsion. Stupor, delirium or coma may develop at any time. Paralysis, transitory or permanent, may come on—aphasia, facial paresis, mono-

plegia, hemiplegia, paraplegia, etc. Ephemeral attacks of paralysis may precede uremic convulsion or coma. Delirium and hallucination are not uncommon, and disorientation may be a prominent manifestation of mental disturbance. Hysteria may exhibit many of the above symptoms, but all organic diseases of the nervous system and the viscera must be excluded before a diagnosis of hysteria can be made. Aside from the neurasthenic symptoms, many of the transitory *subjective* symptoms are due to uremic or other intoxication, while the transitory *objective* symptoms are due to arterial degeneration. Mistakes in diagnosis are common and too much care cannot be bestowed upon a careful quantitative and qualitative examination of the urine in a patient suffering from these symptoms. If the patient be in the fifth decennium, this examination is imperative.—(Medical Record.)

* * *

THE CURABILITY OF EARLY PARESIS.

Paresis in its early stage, "paraparesis," can sometimes be arrested. It is almost always a parasyphilitic disease, and bears the same relation to the brain that tabes dorsalis does to the cord. In 5 per cent to 10 per cent. of the cases of degenerative syphilis of the nervous centers, the patient suffers from both paresis and tabes (tabo-paresis), the paresis associating itself with tabes, or vice versa. Tabes may be arrested in its early stages and remain stationary for years, and Dana believes the same is true of paresis. The cases must be taken in the very worst stages of the disease. The difficulty lies in the diagnosis, but with a history of syphilis, and mental and somatic evidences of degeneration of cerebral tissue, it should be inferred that in the majority of cases paresis would develop and treatment should be instituted. There should be a complete change in the mode of life—rest and fresh air, hypodermics of bichloride or solicylate of mercury, grs $\frac{1}{4}$ to grs 3 twice a week. This should be followed by iodide of potassium and tonic measures. During this course of treatment a luke warm bath should be given daily and a hot one weekly.—(Jour. Am. Med. Asso.)

* * *

UNIQUE CASE OF MIND BLINDNESS.

Holden reports a case of mind blindness that is unique in that no lesion was found on the mesial surfaces of the occipital lobe or in the optic radiations, as is the rule in cases of mind blindness. There was softening of the angular and supramarginal gyri, and that part of the occipital cortex lying immediately behind these structures. There was percep-

tion, but the higher centers of visual apperception were destroyed.—(Am. Jour. Med. Sciences).

* * *

NEURASTHENIA.

Hunt reports two cases of severe neurasthenia, cured by forced feeding and exercise, after the rest treatment had failed, and concludes that food and exercise are two very important therapeutic measures in the treatment of this malady.—(Jour. Am. Med. Ass.)

SEA BURIALS.

Notwithstanding the popular jocosity on the subject, there is no special friendship or alliance between the medical profession and the undertakers. The latter profit by our failures and their business suffers by our success. We can not, however, indifferently and complacently regard the recent proposal by the president of the New York State Embalmers' Association that a law be passed prohibiting burials at sea. The mercenary spirit of the proposition is evident, and its insanitary character is also sufficiently clear. The only possible objection to a sea burial, aside from personal and sentimental ones, is the loss to the soil of the fertilizing constituents of the human organism, and that is too utterly absurd to notice. On the other hand, the retention of bodies on a ship, often with very imperfect means of preservation, and especially in the case of death from certain diseases, might be extremely dangerous. Still, the passage of such laws is a possibility. Similar gems of commercial cupidity appear sometimes on our law books, but they usually have a sort of pseudo-sanitary or other claim for excuse, which is wanting for the above-mentioned proposition.—(Jour. A. M. A., Oct. 29, 1904.)

ANTI-TUBERCULOSIS LEAGUE ORGANIZED.

The Kentucky Anti-Tuberculosis League was formally organized on June 8, by the election of the following officers: President, W. C. Nones; vice-president, Rev. William H. Ramsey; secretary, George L. Schon, and treasurer, Theodore Harris. A committee composed of Dr. Jacob A. Flexner, Robert W. Bingham and C. A. Adler was appointed to draft by-laws. A resolution was adopted asking every person interested in the establishment of a tuberculosis hospital to join the association, which can be done by the payment of \$5.00. Thus far no site has been considered nor will this be done until the membership is increased.

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DR. ADOLPH O. PFINGST**GALL STONES AND GASTRIC ULCER.**

We wish to again call attention to the importance of a thorough appreciation of the pathology and the possibilities of permanent relief of disease in the upper abdomen. While the general profession is quite familiar with the symptom complex presented by the appendix and the uterus and its adnexa, as also with the measures requisite to cure these conditions, the same cannot be said of the changes produced by disease located in the upper peritoneum. These most frequently concern the gall passages, the pancreas and stomach, and from the anatomical arrangement of these organs the symptoms most predominant are those relating to the latter viscus. These organs are all concerned in digestion; hence organic disease of any of them must of necessity give rise to a pathology which threatens not only the proper nourishment of the body, but life itself. This close relationship, anatomical and physiological, has caused not only considerable difficulties in differential diagnosis, but has also been a reason for misinterpretation of the prominent symptoms which present, and has been reason sufficient with many practitioners for making one organ, the stomach, bear the blame for all these disturbances. Disturbed function of any of these organs so intimately allied and concerned in digestion, would alone be a serious enough problem to deal with; but when we remember the relationship of these same organs to the great peritoneal cavity, which is so resentful of insult, and at the same time so careful in local infection to protect itself by the formation of inflammatory walls resulting in adventitious bands and adhesions, we understand not only the dangers, but also the interference, on account of pain and discomfort, with such full enjoyment of health and life as should be the lot of everyone. It would then seem that all digestive disturbances, and most particularly those in

which the stomach seems at fault, should be carefully scrutinized.

Two years ago in an article upon the subject of the "Diagnosis of Diseases of the Upper Abdomen" we said "that chronic indigestion and dyspepsia *per se* do not exist in nearly the number of cases in which it is so diagnosed, and that the causes producing the symptomatology are most often gall bladder diseases or ulcer of the stomach," and to this we may add pancreatic disease. Of gall bladder disease much has been written, but there is still much misconception as to its symptomatology and its treatment. Jaundice, its presence or absence, plays entirely too great a role in the minds of many. Its presence does not even mean gall stones, but means there is an obstruction to the common or rarely the hepatic duct. This obstruction may be caused by other things than stone, such as cancer, pancreatitis, pyloric thickening, perigastric adhesions, and as a matter of fact is produced by an occluding concretion in only about 10 per cent. of the cases of cholelithiasis. The most constant and valuable signs are those of digestive disorders with localized tenderness at Robson's point. These with occasional colic mean almost positively stone in the gall-bladder. And so with the treatment; medicinal treatment, even if perchance stones are passed, does not mean a cure of the underlying fundamental disease, which is always an infection and can only be positively and with certainty cured by gall-bladder drainage.

Now as to gastric ulcer and its sequelae and consequences: These are much more common as the underlying cause of disturbance than has been supposed, as shown not only by autopsy work, but by operative work. Robson and Moynihan in England, and Mayo in this country, have had an immense experience in gastric surgery and all within recent days. According to their reports ulcer or its results exist in five or ten per cent. of all people, though probably this percentage is a bit high for the south, as the disease is commoner in northern latitudes. Be that as it may, the all important question is early recognition and, when recognized, cure. As relating to diagnosis we may say that given a patient with gastric symptoms, the import of his complaint is overlooked and the symptomatology treated with a lightness which, if carried out in connection with pain in other localities, for instance, in the iliac region, would be regarded as almost criminal. These sufferers are not given the thorough, painstaking examination they deserve, they too often make their own diagnosis of indigestion or dyspepsia with which the physician consulted concurs, and not infrequently they dictate the

lines of their treatment with such statements as "I need my stomach washed," or, "I need pepsin," and like phrases. We are sure that there has been and is much dereliction with regard to this class of patients. They go from doctor to doctor until they become looked upon as nuisances by doctor and friends.

And gastric analysis is not the only means of arriving at a correct opinion. In fact it may be quite misleading and is not to be given the greatest weight in the summing up. In our own experience the physical examination, carefully made and properly considered, has been more valuable and has always enabled us to make a correct diagnosis of the indication, at least, in the case. Pain, tenderness, and vomiting, especially hematemesis, are in themselves sufficient, and to these in the absence of all other symptoms, physical or chemical, the very greatest weight must be given. Should the diagnosis be made either positive or tentative, and should medical treatment of a proper character with rest of the stomach not bring about a cure, or at least such improvement as would justify us in believing in ultimate cure, or should we believe that the ulcer is well, but such sequelae as pyloric obstruction, perigastritis, hour-glass stomach be present, the case should at once be submitted to surgical operation. The one indication in these conditions is drainage of the stomach, and this is best effected by a simple gastro-enterostomy. No matter where the ulcer may be located in the stomach, whether single or multiple, bleeding or not, gastro-enterostomy always relieves completely and permits of complete and perfect cure. There is no operation in surgery which gives better results to both surgeon and patient, which is so completely satisfactory, and at the same time with as slight mortality and risk as the one proposed and done for the cure of this condition. This being true, and the same holding good with equal force of gall-bladder operations for stone, provided of course, the cases are seen before the patients have lost all resistance from long continued illness. It is our bounden duty to recommend surgery for these ailments. Surely could the gratifying results achieved from actual experience be known to all practitioners, as they are to surgeons, there would be no hesitation.

In conclusion we might add that if the above conditions are suspected, and even not clearly proven or differentiated, we are fully justified in advising and carrying out an exploratory operation in this region, and doing what seems best at the time for the cure of such lesion as may be exposed.

We need not only more careful diagnosis, more surgery when diagnosis is made, but

more exploration of the upper abdomen; and just as soon as we join hands and educate the public up to this point just so soon will we cure patients of complaints and ailments which embitter them by suffering and often make life a burden.

LOUIS FRANK.

MONKEYING WITH SYPHILIS, LEPROSY AND TUBERCULOSIS.*

In order to study disease in detail, especially those due to pathogenic organisms, experimental reproduction in animals is of the greatest importance. A brief consideration shows at once that, on the whole, those diseases that may be reproduced in animals are far better understood and controlled than those which can not thus be transmitted. It is, therefore, with much interest that we note the further success attained in the experimental inoculation of monkeys with syphilis.

In their last report, Metchnikoff and Roux describe their further experiments in this fertile field. Altogether they have inoculated ten chimpanzees with syphilitic virus from various sources and have obtained positive results in all cases. Successful results were obtained by using material from secondary lesions of the disease, as well as from the primary lesion, and one chimpanzee has been successfully inoculated from lesions of another, thus establishing the possibility of transmission from animal to animal.

The incubation period varied in these experiments from twenty-two to thirty-seven days. Some days following the primary lesion adenopathy developed in a characteristic manner and the investigators also obtained typical mucous patches on the tongue in one instance. Smaller monkeys were successfully inoculated with the virus, and attempts have been made to produce antibodies and also to obtain a vaccine, but so far the experiments in this respect have been negative. The fact, however, that successful inoculation may be obtained with these smaller animals is of great importance, in that material for further work along this line may be comparatively easily obtained and thus greatly increase the number of investigators.

Metchnikoff and Roux were also able to demonstrate that the virus of syphilis does not pass through a Berkfeld filter, which allows the organisms of peripneumonia to pass, indicating that the virus in all probability exists in molecules large enough to be seen if only the proper technique is employed. They were also able to show that the virus is killed by exposure to 51 degrees C. for one hour, and that glycerine does not destroy its patho-

genic power. These facts enabled them to attempt an attenuation of the virus for purposes of vaccination, but the few experiments so far made have resulted negatively.

The importance of this work on syphilis can scarcely be overestimated. Here is a disease recognized as one of the most widespread scourges of the world, and about which practically nothing is known so far as etiology is concerned. Suddenly, largely through the work of these French investigators, this disease has been brought within the realm of experimental medicine, and certainly we expect our knowledge of the disease to be greatly extended within a short period of time. In this connection it is of interest also to note that an apparently successful attempt has been made to inoculate monkeys with leprosy. Nicoli inoculated into monkeys (*Macacus sinensis*) fragments of leprous tissue and obtained, after a period of incubation of sixty-two days, nodules which have the characteristics of human leprous nodules. The bacillus of leprosy was found in the nodules by suitable staining methods in rather small numbers. None of the large leprous cells filled with enormous masses of bacilli, which appear in the human, was seen, this really being the only difference observed between the nodules in man and in the inoculated animal.

Further experiments are in progress along much the same lines as those being carried on with syphilis. We, therefore, have good reason to hope that this disease, about which so little is known, will also become accessible to experimental research.

It is well known that monkeys are very susceptible to tuberculosis and this fact has been taken advantage of in attempting to determine the relation of bovine to human tuberculosis. Because they are more closely related to the human being zoologically than any other animal, the experimental results obtained with them are, for that reason of greater value than results obtained with species farther removed from man, and because of the impossibility of inoculating the human species with the bacilli; the inoculation of monkeys furnishes the most direct experimental evidence possible on the question of the transmissibility of bovine tuberculosis to human beings.

De Schweinitz, Dorset and Schroeder recently succeeded in producing generalized tuberculosis in seven monkeys by both feeding and inoculation experiments, using tubercle bacilli of both human and bovine origin. They conclude from this, and also from other evidence, that there is every reason to believe that bovine tuberculosis is communicable to man,—and that the only difference between

tubercle bacilli of human and bovine origin is one of virulence. Nocard, Cipollina and others have obtained similar results.

These experiments with monkeys indicate the important role these animals may play in experimental work in the future.

WHAT HAS THE PUBLIC A RIGHT TO EXPECT OF ITS PHYSICIANS?

During the nineteenth century marvels were accomplished in all departments of human endeavor. The impossible became the real, the ideal became the actual. The genius of man grappled from the earth and seized from the skies the hitherto intangible, and learned to harness to his work many mysterious agents of Nature.

In no department of either the arts or sciences has advancement been more substantial and far-reaching than in medicine. Beginning with the immortal researches of Pasteur into the cause of fermentation, growing with the application of Pasteur's principles to surgery by Sir Joseph Lister, gaining added lustre and impetus by Koch's discovery of the causative agent in tuberculosis, the work of research and demonstration has been taken up by a host of faithful votaries, the result of whose combined labors has not been short of marvelous.

The public which employs physicians, has a right to expect and demand that these physicians shall take means to keep themselves abreast of these advances, in touch with the latest and best, and so able, when employed, to give an adequate service for the fee demanded. It can be taken as proven that a physician who does not take one or more of the current medical journals, who never takes any time off for post graduate work, who never attends the state and county meetings of the medical fraternity, is not fulfilling his proper obligations to the public.

The public has a right to know, and should be informed, that for the great majority of physicians there is only one possible way to keep in touch with the discoveries and advances of the science of medicine, and that is through the agency of the weekly, monthly and yearly gathering together of medical men in societies for the interchange of ideas and for mutual encouragement and improvement. The public should therefore see to it that its doctors attend medical society meetings, and make every earnest and honest effort to be proficient and capable, and so able to render the best service possible when called upon to do so.

It is a long established fact that law has always followed public opinion and sentiment;

it has never preceded it. Whenever a law is enacted by a legislative body which is not in harmony with public opinion, that law becomes a dead letter on the statute books. But the law passed with public sentiment behind it is carried out without difficulty. In the same way it comes to pass that the people of a community are served by physicians of just such a kind as they demand. The public can therefore see the importance of taking an intelligent interest in the doctors' affairs and the doctors' societies. And just in proportion as this interest is intelligent and insistent will be the attainments and advancements of the doctors of that community.

If a physician constantly fails to attend the meetings of the county medical society, is it not well within the province of that physician's clients to inquire the reasons for this failure? As an excuse for non-attendance is sometimes offered the pretext that the county society is a sort of doctors' union or "trust," whose object is the advancement of fees. Those who have attended these meetings know that this is an absolute absurdity, that the sole object of these doctors' meetings is the making of better doctors, who can render a better service and earn rightfully the fee charged.

The public is aware that in every community are to be found "rate cutters," men who are willing to do professional work for a less fee than their professional brothers ask for the same service. The public should appreciate just what this means, that doctors ask less for their services only when they know the services are worth less than those of their fellows. Of such men the best that can be said, perhaps, is that they are at least consistent and honest from a trade standpoint—they ask less for what they believe to be an inferior article. There is probably the same kind of economy in employing a cheap doctor that there is in buying a cheap pair of shoes.

Now on the other hand, let us consider for a moment what the doctors of a community have a right to expect of the public. They certainly have the right to expect to be *paid* for services which are intelligently and honestly rendered. And this being paid embraces practically all they have a right to expect. For a man who is *paid* for his services can attire himself and support his family in the decent state which his position in society demands; he can give his children at least the educational advantages enjoyed by the children of his neighbors; he can afford to take some time off for recuperation and post graduate work; he can lay by a surplus, a little store, against the day when old age or crepitude may find him laid away on the shelf, no longer a bread winner but still a bread con-

sumer. If he can do all these things he will necessarily occupy in his community the respectable and influential position which his membership in a learned profession should entitle him to.

PURGATION.

When Adam and Eve found themselves in the Garden of Eden, and began to experiment with the curious vegetable growths about them and put on trial all the springs of mineral waters, they doubtless soon made discovery of the fact that certain agents produced purgation. And from that very ancient time to this present day this onslaught on the physiological function of the bowels has continued without intermission or cessation, at the hands of both the laity and the profession. The abuse of the purgation producing qualities of many medicinal agents has been so widespread that it would perhaps not be overstating the case if it were said that in total results the world would be better off to-day if purgative pills had never been invented.

If the old horse is whipped first up the hill and then on the level, the time soon comes when he has to be whipped even going down hill, too. Stimulation of the bowel function by purgative medicines is of exactly the same order. The bowel is a creature of habit and acquires with remarkable readiness the habit of waiting for purgative stimulation before moving. The prescribing of purgative medicine is easily done, the medicine is quickly effective, but the ultimate result is not infrequently most disastrous. The chronic constipationist, the man whose bowels never move without a purgative pill and a fight, is indeed a picture to excite both pity and regret. The practitioner's duty ordinarily would be much better done if wholesome advice were given as to correct eating and drinking and mode of life in general, especial stress being laid on the importance of developing a *daily habit*, which, once acquired, is to be religiously observed. The giving of purgative medicines by mouth is further sometimes flagrantly abused in cases of intestinal obstruction, or of suspected obstruction. If the onward and downward flow of the intestinal contents is prevented by an accumulation of any kind within the lumen of the bowel, the indication would certainly be to forward the intra-intestinal mass by attack from both above and below. But if the obstruction be from without the lumen of the bowel, as in volvulus, obstruction from a band, or acute angulation with adhesions, it can readily be seen that stimulation from above can only do harm by accentuating both the condition and the symp-

toms already present. On the contrary, attack from below by enema may be very helpful and at the same time is entirely without harm. The hysterical efforts sometimes indulged in to produce evacuation by purgatives given by mouth are apparently more for the relief of the attending physician's mind than necessitated by the patient's needs. For if the bowels can be made to move in this way, it is practically a demonstration that they did not need to be so moved, as the danger in such a case is not at all from the retained intestinal contents per se. And it can be laid down as a certain rule that the more purgatives given by mouth the greater the vomiting will be. If such a case is to have any kind of salvation at all outside of a surgical operation, it will come through the parts concerned in the obstruction being left for a time in absolute and recuperative quiet.

In another class of cases, those not of obstruction but of intestinal inefficiency, intestinal paresis due generally to an infectious peritonitis, purgation by mouth is manifestly contraindicated. The more fluids and the more purgatives given by mouth the more will be the stomachic distention, the more will be the vomiting. Getting rid of this fluid by stomach lavage, emptying the large intestine by enema, these measures will be most effective. In addition such remedies should be administered hypodermically as will tend to restore the tone of the muscular structure of the bowel and overcome the partial paralysis.

Lastly we come to consider the use of purgatives administered by mouth in cases of beginning appendicitis, or of suspected appendicitis. Just here we had as well state our thorough and complete conviction that all cases of frank appendicitis should be operated on at once, provided the diagnosis has been made early in the attack, and for the very good reason that no finite man has the infinite power of being able to determine at a given time what will happen a few hours hence in an abdomen afflicted with an acutely inflamed appendix vermiformis. Ordinarily the diagnosis can be made early; but in those cases where it is not possible to make an early diagnosis, where it becomes necessary to wait and observe the patient for a few hours, shall we purge him by cathartics given by mouth? When the patient will not consent to immediate operation, or operation at all, and we are compelled therefore to do the best we can, shall we so purge him?

Let us consider for a moment nature's method of protection in cases of inflammation of the appendix. As the inflammatory process, beginning in the mucous membrane, gradually extends through the muscular coats to the peritoneal coat, the latter becomes

involved in an adhesive inflammation which tends to make it adhere to contiguous peritoneal surfaces. So it happens that an acutely inflamed appendix is oftentimes found completely enveloped in omental adhesions, exactly comparable to placing the forefinger of one hand in the palm of the other, and then closing the hand on the finger.

In other cases the appendix is completely walled off from the general peritoneal cavity by adhesions of the adjacent coils of small intestines and the overlying abdominal wall. When the appendix is so walled off, even if rupture, or partial or complete gangrene occurs, the worst that can happen immediately will be the production of a localized abscess. On the other hand, if no such omental or intestinal adhesions occur, and then rupture of the appendix takes place, at once infectious material is poured out into the free peritoneal cavity, and a probably fatal, or at the best, a very dangerous process has begun. |

Such being nature's protective method, what should be our aim in the early treatment of such cases? Manifestly we should try to second and assist in every reasonable way nature's effort to render an inflamed and angry appendix harmless. We should use every means which would insure the probability of adhesions occurring between the appendix on the one hand and the surrounding coils of intestines and overlying omentum on the other. The one thing which, more than all else, can insure such protective adhesions is *rest* of the parts involved, perfect quiet, which will permit the adhering parts to lie long enough in contact for adhesion to take place. This is the philosophy of the old opium treatment of "inflammation of the bowels" and, in that it preserved quiet of the intestines and permitted adhesions to form, it was undoubtedly a good treatment, the best which the knowledge of the times when it was used permitted.

Now let us inquire what purgatives by mouth accomplish in this condition. As soon as the purgative enters the stomach it sets up action in the muscular structure of that organ, which in turn communicates motion to the omentum, causing it to play up and down. As soon as it enters the intestines it causes it to begin violent action, and this action may be continued over several hours. This motion on the part of the stomach and intestines accomplishes exactly what is not desired from the standpoint of adhesion formation about the appendix. Further than this, if a perforation of the appendix does occur, the purgative serves to pump fecal matter, rendered more fluid by its action, into the peritoneal cavity insuring the production of a general peritonitis.

Our aim should be to avoid stirring up

stomachic and intestinal activity, whether by purgative or by food and fluids. If a good sized meal has been taken into the stomach shortly before the patient is seen, and there is reasonable expectation therefore that the stomach still contains a good amount of food, it should be emptied by means of the stomach tube. The lower bowel should be emptied by means of enemata; the stomach should then be kept empty of both food, water and medicines. Enough food and water can be supplied by enema to preserve life when necessary for several weeks.

We therefore conclude that the exhibition of purgatives by mouth in beginning appendicitis, or suspected appendicitis, is harmful rather than beneficial, and should be avoided.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The *Barren County Medical Society* had a pleasant meeting on Wednesday, May 3rd, in the grand jury room in the court house in Glasgow. We had a good attendance and had with us as visitors, Dr. James B. Bullitt, of Louisville, Secretary of the State Medical Association, and Dr. A. T. McCormack, Councillor of the Third district. These gentlemen came to us at an auspicious time, as we were really in need of some good missionary work in our society. Dr. Bullitt highly entertained us in a splendid talk on the importance of county medical societies, both to the counties and to the profession at large. He said every reputable physician should by all means be a member of his County and State Societies.

Dr. McCormack gave the Society a severe reprimand for not taking more interest in our Medical Society. He said he was both surprised and disappointed to find such apathy with the profession as existed in Barren county.

The visit of these two enthusiastic representatives of the State Association has inspired us with new life, and we expect ere long to have one of the best societies in the State.

One of the pleasurable features of this meeting, from a social standpoint at least, was the excellent dinner prepared for us at the New Murrell Hotel, and which was participated in by the Society in a body. So well pleased were the members that a motion was made and carried that in our subsequent meetings dinner at the "New Murrell" shall be a

permanent feature of the Society's meetings. I would suggest to the various county societies of our State that they take more interest in cultivating the social features of our meetings. Arrange to take dinner in a body at some hotel or restaurant, socialize for an hour, and you will feel better and happier and be anxious for the next meeting to come around. Try it and see.

Our afternoon meeting was devoted to the business part of the Society, after which the Society adjourned to meet again on the first Tuesday in June.

F. J. TAYLOR, Sec'y.

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The *Clark County Medical Society* met at Dr. Lyon's office, in Winchester, May 13th. Drs. Stephenson, McKinley, Clark, Wells and Lyon were present.

Dr. Clark's essay on "Some Valvular Affections of the Heart," elicited an interesting discussion. He will attempt to show, at our next meeting, that the eye and hand are better diagnosticians than the ear.

As we all wanted to talk on the Winchester Hospital question, Dr. Stephenson's request that his paper be postponed was granted.

After much debate, Drs. Shirley and Clark were appointed a committee to confer with the Commercial Club and City Council.

The Society then adjourned to meet June 10th.

Dr. and Mrs. M. S. Brown, and son, Pruitt, are sojourning in Alaska and will not return until late fall.

HOWARD LYON, Sec'y.

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The meeting of the *Fleming County Medical Society* was held on May 17th, 1905. The Society was called to order by the President, Dr. J. P. Huff. Members present were, J. P. Huff, W. W. Dye, T. Ribelin, J. A. Minnish, J. B. O'Bannon, J. C. S. Brice, C. R. Garr and A. S. Robertson.

Dr. J. B. O'Bannon reported a case of pleuritic effusion which was discussed at length. Dr. W. W. Dye also read a paper on abscess of the lung, a paper of great interest and which was discussed at length.

Dr. C. R. Garr read a paper on "The Past, Present, and Future of Medical Men and Medical Societies of Fleming County." This paper was a most excellent one and was discussed by every member present.

This was one of the best meetings we have had for some time. Our membership has increased during the past year, and if we can get the members to attend regularly we will have one of the best Societies in the State, according to our number.

The Society adjourned to meet at its regular time, the third Wednesday in August.

A. S. ROBERTSON, Sec'y.

The *Fayette County Medical Society* met as usual at the court house on the night of April 11th. Dr. Van Meter presented a young man about 20 years old in whom he had excised the head and neck of the femur for tubercular disease. There was good ankylosis and he was able to bear his weight upon it without any pain, the actual shortening showing only about one inch by measurement.

Dr. Barkley showed a very large lipoma, removed from the perineum of a man, which which was about as large as a child's head.

Dr. Stucky reported two cases demonstrating the importance of early diagnosis and operation in suppurative disease of the frontal sinus and mastoid antrum. His two cases showed well how insidious may be the onset and with how few symptoms, comparatively, these cavities may be the seat of extensive disease.

The work of the evening was a symposium on malignant tumors. Dr. Estill took up the subject of their pathology and etiology; Dr. Scott, the surgical treatment, and Dr. Roberts the X-ray treatment. The discussion was opened by Dr. Dougherty, our visitor from Paris, who mentioned a case of carcinoma of the uterus too extensive for radical operation, but as much of the cancerous tissue as possible was scraped away and the actual cautery used. This patient was to all appearances entirely well three years afterwards. Dr. McClymonds emphasized the frequency with which ulcer of the stomach is followed by carcinoma of that organ; this is now recognized to be 50 per cent. Dr. Kinnaid said that the regular profession was too apt to relegate the use of caustics to charlatans and irregulars, and by so doing were giving up a remedy very useful in some cases of small, superficial tumors; they sometimes cause less scarring and disfigurement than operative treatment. He mentioned a case of carcinoma he had seen somewhat benefitted by Coley's toxins of erysipelas and bacillus prodigiousus, and which had been very much benefitted afterward by X-ray treatment.

The May meeting of the Society took place May 9th. Dr. Sprague read a paper on "Neuralgia." Dr. Bullock reported three cases of neuralgia which he had operated on. In one he excised the superior maxillary nerve, in another the inferior dental, and in the third, he excised the Jassarian ganglion. The first two were well two years after operation, and the last had no recurrence up to the time of death from uramia nearly a year after operation. Dr. Bullock also presented a case of persistence of the omphalo-mesenteric duct.

Dr. McClure made a motion that the Society pass the following resolution:

Resolved, That it is the consensus of opinion of the members of the Fayette County

Medical Society, now in session, that the statue of Dr. Ephraim McDowell, the greatest of surgeons, should adorn Statuary Hall in our Capitol at Washington."

It was unanimously carried.

Dr. Van Meter said he had been informed that the room given to the Society by the Lexington Public Library would be ready for occupancy by the first of June. The Directors of the Library have given a large room in the magnificent new building to the Society for its exclusive use, where it can hold its meetings and build up a medical library with a reading room for its members. From this beginning the Society hopes to lay the foundation for a valuable medical library.

W. H. SMITH, Sec'y.

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The *Franklin County Medical Society* met June 3rd in the office of Dr. Williams with the following members present: Drs. Demaree, Hume, Ely, Garrett, Coleman, Montfort, Williams, Mastin and Coblin.

The essayist not being present, clinical cases were called for. Dr. O. B. Demaree reported case of resection of ninth rib. It was due to a gun shot wound of two years standing which resulted in necrosis of the bone. Complete recovery in the case.

Dr. Hume reported case of partial tubal pregnancy.

Dr. Williams, the delegate to the Tuberculosis Congress, gave an interesting talk relative to the work of that body. Discussion by Drs. Hume, Montfort, Ely, Coleman and Demaree.

The following program was adopted for the remainder of the year:

ESSAYISTS AND SUBJECTS.

July—Dr. J. R. Ely, "Diphtheria."

August—Dr. E. E. Hume, "Ectopic Pregnancy."

September—Dr. O. B. Demaree, "Typhoid Fever."

October—Dr. N. M. Garrett, "Anasthesia."

November—Dr. J. S. Coleman, "Otitis Media."

December—Dr. W. Montfort, "Post and Ante Partum Hemorrhage."

After which the Society adjourned.

W. E. ALLEN, Sec'y.

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Munfordsville, Ky., June 5, 1905.

The *Hart County Medical Society* met here to-day; those present were: Drs. C. J. Walton, T. H. Garvin, G. G. Hubbard, G. W. Ford, C. Hall, H. C. Bruner, F. L. Cessna, and J. J. Adams.

Dr. F. L. Cessna reported an operation for Fistula in-Ano. Dr. Garvin read a paper on "Puerperal Convulsions," and J. J. Adams

read a paper on "The Management of Normal Labor Cases."

This was voted by all present to be one of the best meetings this Society has ever had, and those physicians of our county who were not present have not only failed in their duty to themselves, their fellow practitioners, and their clientele, but they have sustained a great loss in not hearing Dr. Cessna's report and Dr. Garvin's paper; the latter will be published as an honor to Dr. Garvin and our Society.

J. J. ADAMS, Sec'y.

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Hickman and Carlisle County Medical Societies met in a joint meeting at Milburn Bridge, a fine camping ground on the line between the two counties, on May 31st and June 1st. This was a special meeting and a special program had been arranged, as follows:

Morning Session—First Day.

"Puerperal Eclampsia," Dr. W. R. Moss

"Gastro Enteritis," Dr. Simpson

Afternoon Session—First Day.

"Subacute Pharyngitis," Dr. Payne

"Infantile Pneumonia," Dr. Berry

Morning Session—Second Day.

"Emergency Surgery," Dr. Jackson

"Indications and Uses of Strychnia,"

..... Dr. Hunt

Afternoon Session—Second Day.

"Gonorrhea," Dr. McMorries.

Report of Cases.

All who had been put on the program were present and it was agreed by all present that this meeting was one of the most interesting ever held in Western Kentucky. All the members entered into the discussions with much interest, and were so well pleased that it was voted to have another meeting of the same character in October.

The fare was of the best of both Hickman and Carlisle counties, barbecued lambs, squirrel stews, fish, being only a few of the good things served.

There were visiting physicians from Ballard, McCracken and Graves counties, with a total attendance of fifty.

The Societies moved that a report of this meeting be sent to the Kentucky Medical Journal for publication.

E. B. M'MORRIES,

Secretary of Hickman County,

T. D. BUGG,

Secretary of Carlisle County.

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The *Nelson County Medical Society* met in regular quarterly session in the City Hall of Bardstown, on Wednesday, June 7th at 11

a. m., with President J. B. Overall in the chair, and Secretary Hugh D. Rodman at the desk. There were present Drs. J. M. Young, S. B. Crume, J. G. Powers, M. E. King, J. T. Greenwell, J. B. Overall, H. F. McKay and Hugh D. Rodman.

Dr. McKay reported a case of hypertrophy of the mamma in a woman 19 years old, seven months pregnant with her second pregnancy, the first pregnancy having terminated at five months. Each mamma would weigh 15 to 18 pounds and hung below the umbilicus with no hardening and no pain.

Dr. Young reported a case of chronic gastric trouble producing urticaria of an annoying type.

Dr. Overall reported a case of spinal meningitis.

Dr. Rodman read a paper on diabetes mellitus, with report of an interesting case.

Dr. Crume read a paper on what to do in emergencies such as drowning, lightning stroke, handling live wires, etc.

At the September meeting Dr. McKay was to present a paper on "Hypertrophy of the Mammæ," with a complete report of the case mentioned above. Drs. King, Powers and Greenwell are also to furnish papers, the subjects to be given the secretary later.

HUGH D. RODMAN, Sec'y.

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The *Scott County Medical Society* met in Georgetown on June 1st. In the absence of Dr. Daugherty, the President, who was unable to attend on account of illness, the Society was called to order at 11 a. m., by Dr. Knox, the Vice President. After the reading and approval of the minutes of the former meeting, a patient of Dr. Daugherty's was presented, who had an unusual affection of the tongue and gums. This patient had six years ago an aphthous or fungus growth to attack the edges of the tongue which resisted treatment for three years; at the end of this time she was advised to have her teeth, which were in a carious condition, removed from her lower jaw. After this was done the same trouble that was annoying the tongue attacked the gums. The lesion on the tongue and gums consisted of a thin filmy substance of white and ashy appearance which could be removed rather readily by dry sponging. This patient years ago suffered from a cutaneous eruption, but of late years has had repeated attacks of diarrhoea. Dr. Bullitt suggested that a scraping of the diseased surface be made and submitted to a microscopist, and that it might be worth while to try the X-ray as a curative agent. After this case was discussed very fully by Drs. Bullitt, McClure and Lewis, the regular program was taken up.

Dr. J. E. Wells, of Cynthiana, read a most excellent paper on "Medical Organization."

Dr. J. A. Lewis who was on the program to open the discussion yielded his time to Dr. Bullitt. The point in this discussion that impressed the secretary most was made by Dr. McClure, who insisted that every county secretary was the "whole push," and that great care should be exercised by the various county organizations in the selection of a secretary. After closing this discussion the Society adjourned for dinner which the president, Dr. Daugherty, had ordered at the Wellington Hotel. After a dinner, which in no way compared with what the good doctor would have had served could he have entertained in his own home, the members were ready for Dr. Bullitt and "Purgation."

Dr. Bullitt's talk on "Purgation" was very interesting. He dwelt at length on its abuses—often a cause of constipation, etc. He advocated strongly that all purgatives by mouth be withheld in beginning or suspected appendicitis.

I remember when, not so long ago, some of us thought if we could get a movement through the bowels that we had made great advancement and could almost feel certain that our patient would recover. Dr. Bullitt's idea in treatment of appendicitis is that not only purgatives but food of every kind, even water, should be withheld. If appendicitis is recognized soon after a meal has been ingested, he advocates removal by means of a stomach pump, and in rare cases the hypodermic use of morphine for relief of pain. Dr. Lewis asked about relieving thirst where water was withheld. The speaker replied: "Give the saline solution per rectum in not too large quantities."

Dr. McClure asked to be excused from reading his paper on "Cough; Causation and Treatment."

At 3 p. m., the Society adjourned, to meet again the first Thursday in September.

Four new members were received, viz.: Drs. J. W. Baird, W. P. Forman, M. D. Sanford and R. L. Carrick. Those in attendance were, Drs. James B. Bullitt, W. B. McClure, J. E. Wells, N. W. Moore, C. N. Clifford, John A. Lewis, D. B. Knox, W. H. Coffman, W. D. Scott, D. L. Carrick, J. W. Baird, M. D. Sanford, W. P. Forman, R. H. Sparks, A. B. Coons, C. T. Hendricks and G. B. Brown.

JOHN E. PACK, Sec'y.

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The April meeting of the *Trimble County Medical Society* was held in Dr. C. P. Harwood's office in Milton, Ky. The attendance, in proportion to the membership, was good, six of the nine physicians in the county being present.

Dr. Wm. McMahan reported a case of locomotor ataxia. Dr. L. G. Contri read an

interesting paper on, "How Can the Doctor Please Everybody," which was discussed by all the members. There was some discussion about the advisability of presenting and collecting fees at least every three months.

It was decided that no physician in Trimble county will attend a pauper's call without first having procured a written order from the magistrate of the district where the patient resides.

Drs. McMahan and Rand were appointed essayists for the next meeting, at Bedford, Monday, May 15th, after which the Society adjourned.

On Monday, May 15th, the Society met at Bedford, at Dr. Fisher's office, but as only four members, Drs. S. K. Fisher, Wm. McMahan, C. P. Harwood and L. G. Contri, were present, the meeting adjourned without transacting any business.

The next meeting will be held at Milton, on June 19th, 1905, and Drs. McMahan and Rand will read papers.

L. G. CONTRI, Sec'y.

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Bowling Green, Ky., May 26, 1905.

The *Warren County Medical Society* held an adjourned meeting at Webb's Hotel, in Bowling Green, at 10:30 a. m., on Wednesday, May 24th. In the absence of the President, Dr. J. H. Souther, of Three Forks, was elected president pro tem. After the reading of the minutes of the last meeting, Drs. Volney P. Tygret, formerly of Butler county; Daniel A. Campbell, recently of Indiana, and Duncan were elected members. In the absence of the essayist on paralysis, Dr. A. T. McCormack made a talk on this subject, especially as affecting medical organization, which brought out an interesting discussion on the subject by all of the members present.

Dr. F. D. Reardon opened a very interesting discussion on the subject of meningitis, especially calling the attention to the epidemic cerebro-spinal and chronic tubercular forms. A discussion was opened by Dr. G. E. Huddle, who recited several extremely interesting cases, calling especial attention to the difficulty of diagnosis in sporadic cerebro-spinal meningitis. He called attention to the value of spinal counter irritation in the early stages and especially advocated using turpentine in this connection. He reported a case cured by making a wick of absorbant cotton, saturating it in turpentine and setting it on fire after laying it along the entire length of the spine. He also advised immediate plebotomy, if the cases were seen early enough.

Dr. E. A. Cherry reported an extremely interesting epidemic of cerebro-spinal meningitis which he had seen in Morgantown, and in a very interesting manner called attention to the similarity of the onset of this disease

to that of pneumonia and the more acute malarias. It is rapidly differentiated from them, however, by the development of alarming symptoms and especially of the characteristic petechiae, which were absent in none of his cases.

Dr. A. C. Wright, one of the nestors of the profession in the County, made a very interesting talk along the line of the prognosis of these cases, especially calling the attention to its great gravity in tubercular meningitis. Like the preceding speakers he felt that early depletion and subsequent narcotization were our sheet anchors. At this point Dr. Cherry said that in addition the only cases he had seen get well had had their heads kept in an ice pack continuously and the bodies, especially the extremities, kept artificially heated.

Dr. J. H. Souther reported a very interesting case of meningeal irritation, and spoke of the great difficulty in differentiating in the the slower forms of the disease.

Dr. M. M. Moss, President of the Simpson County Medical Society, who was present as a guest of the Society, made a most interesting talk on the general subject, reporting numerous cases of each form, and especially calling the attention of those present to the fact that all of these cases are not absolutely hopeless, but that prompt, active treatment frequently changes most alarming ones to a pleasant recovery. Dr. A. T. McCormack closed the discussion by quoting from a recent article of Dr. Peabody, of New York, on the subject of the empirical use of diphtheria antitoxin which had aroused great expectations in the earlier months of the epidemic. Dr. Peabody's conclusions from a limited number of cases were that antitoxin had no effect whatever whether injected subcutaneously or in the spinal canal. He also called attention to simple meningitis, which, while frequently alarming in the early stages, usually get well, and to the meningeal infections following the acute infectious diseases.

Under the head of "Case Reports" Dr. McCormack reported a case of a young woman of twenty-seven, whom he had seen with Dr. W. A. Francis. Following an attack of acute pneumonia during the winter she had developed a transverse enlargement between the diaphragm and umbilicus. This had continued to increase and at the time of the diagnostic operation was very tense and hard, and apparently contained fluid. Upon an incision, miliary tuberculosis of the structures in the lesser peritoneal cavity with a very large effusion was found. The foramen of Winslow was completely occluded. The affected cavity was flushed out with large quantities of normal salt solution, and the incision was closed by the tier method. The patient had

made a rapid recovery from the operation, and had improved continuously since, being about restored to her usual health. He also reported a case of perineorrhaphy and ventrofixiation, the later being done by the Kelly method.

Upon motion the Society then proceeded to the election of a delegate to the State Association for the ensuing two years, and by a unanimous vote, Dr. E. N. Hall, of Woodburn, was elected. After considerable discussion, upon motion the by-laws were unanimously amended so that the meeting hereafter should be on the second Wednesday in each month, at 1:30 p. m.; and upon further motion Dr. A. T. McCormack was elected assistant secretary, and his duties were defined as to notify members of meetings and assist the Secretary in every possible way. Most of the members present paid their annual dues, and, after an excellent dinner served by the proprietor of the splendid hostelry, the Society adjourned to meet the second Wednesday in June.

A. T. McCORMACK, Asst. Sec'y.

FOR A BETTER MILK SUPPLY.

The milk exchange of Philadelphia, adopted the following rules in January for the guidance of its members engaged in producing and distributing milk: First. Cows shall be healthy and free from any disease. Second, Milk from any cow suspected of being ill shall be discarded from the herd milk. Third. The dairyman and his household must be free from any contagious disease. Fourth. Milk pails used in milking should have a covered top, with a small opening, protected by wire sieve and cloth strainer. Fifth. All cans and dairy utensils shall be scrupulously clean before using. Sixth. No milk to be kept or sold from living rooms or any room connected with the stable. Seventh. Absolute cleanliness of bottles and bottling apparatus. Eighth. Clean room for filling bottles. Ninth. Clean boxes for storage of bottles or cans, with drains connected to avoid sewer gas. Tenth. Delivery wagons to be thoroughly clean, both inside and outside. Dr. A. C. Abbott has suggested the following measures, which he hopes the milk exchange will adopt. First. That all milk cans be thoroughly washed before being returned to the farms or dairies. Second. That dairy-men and milk dealers generally effectively screen all rooms in which milk is handled, so as to exclude flies.—(New York Med. Jour.)

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HEMOPHILIA.

By IRVIN ABELL, M. D., Louisville, Ky.

Our knowledge of hemophilia is very imperfect, consequently any contribution to the subject meets with a ready reception. In the January issue of the *Deutsche Zeitschrift fuer Chirurgie* Dr. Herman Lossen makes his second report on the Mampel family of Kirchheim bei Heidelberg. The first report of this family was made in 1827 by Max Jos. von Chelius, the second in 1841 by Dr. Mutzenbecher, the third by Dr. Lessen in 1876, and this, the fourth report, by the same author. Dr. Lossen has been the Mampel family physician for thirty years and possesses a complete family tree; this was obtained through the above mentioned reports, the birth, marriage, and death registers of the town. The present generation is the fourth one; in the first generation there were 11 members, 6 males, 5 females; in the second generation there were 40 members, 22 males, 18 females; in the third generation there were 74 members, 40 males, 30 females, 4 stillborn, sex not mentioned; in the fourth generation there were 87 members, 43 males, 43 females, 1 stillborn. In all 212. Deducting the stillbirths there were 207 members of the Mampel family, among whom were 37 bleeders, all males; as there were 11 male members, the percentage is 33.33. A short history of each bleeder is given, from which we learn that the most frequent location for the bleeding was the subcutaneous tissue, the hemorrhage occurring here in 15 cases; originated usually through slight violence, fall, pressure, etc.; in one case the rubbing of the trousers was the apparent cause; in another the mother of the child asserted that the hemorrhage areas came "of themselves;" it is more probable that the child in its sleep moved its body in bed in such a way that slight injury resulted. The resulting hematoma and blood spots were as a rule absorbed; in one case only, upon the head, was it necessary to incise the hematoma, which healed under compression. In two instances the bleeding under the skin was so severe that death resulted from anaemia.

Slight wounds, punctured, incised, torn, of the external skin were, in 10 instances, the cause of the bleeding; in two of these the bleeding was so severe that death resulted. Under this heading might be classed the two cases, one fatal, of hemorrhage from the umbilical cord.

Nose bleed was noted in 10 cases and was marked by its difficult control and repeated occurrence.

Bleeding from the lips was noted 9 times, mostly from the band on the inner surface of the upper lip leading from the base to the gum; caused by falls or injuries sustained from the introduction of hard substances into the mouth. The bleeding was always hard to check and in five instances was fatal. Similar causes led to bleeding from the gums in 9 cases; these were also difficult to control and caused death from anaemia in two cases. There were four cases of slight injury to the hard palate, two of them resulting fatally from the hemorrhage. The tongue furnished the bleeding point in two instances.

Bleeding from the stomach occurred in two cases, one resulting fatally. Rectal bleeding occurred once, presumably caused by the passage of hard fecal masses. Blood in the urine was noted in three cases, twice from the bladder, and once from the kidney; the bladder bleeding in one case was so severe that the urethra was plugged by a clot, necessitating the use of the catheter. Bleeding from the lung was observed in four cases, resulting from severe exercise or work and in two of them was fatal. Cerebral hemorrhage occurred once, from a fall and ended fatally.

Joint swellings were present in 9 cases, the knee being particularly mentioned in six cases, the elbow in one. The rule in these cases has been that the blood was quickly absorbed under the influence of massage and hot applications; after repeated hemorrhages into the joint a varying amount of stiffness remained; in five cases it is reported that this became more and more marked with increasing age, probably due to an adhesive synovitis. In no instance was joint tuberculosis observed. To recapitulate; there were 111 male members of the family of whom 37 were bleeders; of these 37, 18 48.65 per cent, nearly one half, bled to death, subcutaneous tissue and muscle 2, wounds of the skin 2, wounds of the lip 5, wounds of the gums 2, wounds of the hard palate 2, stomach bleeding 1, cerebral 1, lung bleeding 2, umbilical cord 1.

Most of the deaths occurred in childhood, 7 up to the third year, 6 between the third and tenth year, 1 in the second decade, 2 in the third decade, and 2 in the fourth decade; the tendency to bleed was most notable in the first decade, then gradually decreasing up to

the disappearance after the fourth decade; the most frequently noted bleeding points were the skin and subcutaneous structures, mucous membrane of mouth and nose, and into the joints.

The rule regarding heredity in bleeding families is that the males alone inherit the tendency; the tendency to bleed is transmitted not by the father but by the mother, who is a member of a bleeding family, but not a bleeder herself; a male member of a bleeding family, himself a bleeder, marrying a healthy wife, not of bleeder origin, fails to impart this tendency to his children. There were no exceptions to this rule in the Mampel family; none of the females were bleeders; the mothers in 19 of the 31 families were sisters of bleeders and invariably imparted this tendency to their male offspring; in these 19 families there were 82 male members, of whom 37 were bleeders, a per cent of 45.14; in the remaining 12 families, the fathers were members of the Mampel family who married healthy wives not members of the same family, with the result that there is not a bleeder among the offspring.

A striking feature of the number of children and the mortality during the first year of life; aside from the deaths due to bleeding there were 57 deaths before the end of the first year, 42 in the first half and 15 in the second. This mortality among the children seems to be well marked in the 12 non-bleeding, as in the 19 bleeding families.

From his observation and investigation Dr. Lossen is unable to add anything new to the pathology or etiology of hemophilia; when attending members of the family for bleeding from an accessible region he found that chloride of iron, ferropyrin, or best of all, the platinum cautery checked the bleeding by clot formation; the difficulty arose from the fact that this clot was so easily displaced, seemed not to spread out into the surrounding tissue, and not to hold fast to tissue fibres at wound margin. It is ordinarily accepted that clotting results from the formation of thrombin by the union of fibrinogen and paraglobulin in the presence of the fibrin ferment; it may be that in the blood of hemophiliacs the thrombin is in insufficient quantity, or that the blood contains something that interferes with the working of the ferment; the last hypothesis is given color by the fact that alkalies added to human blood after withdrawal prevents clotting; the same is true of the substance found in the mouth of the leech; further the injection of peptone into the blood of a living animal will prevent its clotting upon withdrawal.

THE DOCTOR AS A BUSINESS MAN, OR THE BUSINESS SIDE OF A DOCTOR'S LIFE.

By B. A. CAUDLE, M. D., Newstead, Ky.

I know of no better way of introducing this subject than by a brief review of a doctor's life before he can engage in the practice of medicine. I hope to be able to convince the most skeptical that doctors, as a class, are poorly paid for their services, considering the time and money that must be spent in preparation, and also to prove to you that our loose, careless way of doing business is to some extent responsible for the fact that doctors accumulate so little of this world's goods.

As you all know, on entering a medical college, we, as students, must either present a diploma from some literary college, or stand an examination in the common school branches, as well as some of the higher branches. This necessitates that the larger part of our lives before we can begin the study of medicine must be spent in school. Then, before we can receive our degrees and be ready to practice, we must attend four terms of lectures of six to eight months each, at a cost of \$400.00 or \$500.00 for each term, and in addition read medicine between terms. To make a long story short, we have to spend four years of the best part of our lives and about \$2,000.00 before we can begin business, to say nothing of books, instruments, etc., and if we locate in the country, a stock of drugs, horses, buggies, etc., which would add another thousand dollars to our expenses. Does it not seem that after all this preparation, doctors ought to be able to make more than a scant living, and ought to be able to lay up something for old age? For the time will come when we cannot do the work of young, active men.

Have you ever looked back over the record of some of the doctors who have spent their lives in the practice of medicine? I came to this county some nine years ago, and can name six or eight doctors who spent thirty, forty, some even fifty, years in the medical profession with a large, laborious practice, all of whom have answered the final summons. Two of them left so little of this world's goods that one was buried by his son, the other by his son-in-law; another was buried by a kinsman; still another, one of the most popular physicians I have ever known, left so little that in less than two years after his death his widow had to go to work for a living.

I speak of these matters with all due respect to these deceased brothers, but the facts re-

main the same. They, like many of us, were poor business men, and those who were dependent on them had to suffer the consequences. Profit by the lesson this teaches, and don't follow in their footsteps. Be business men, and collect your bills.

Let us now turn our attention to the amount of money we, as a class, earn annually and what per cent of same we collect, and then leave you to judge if we are not to blame, to some extent, for such small incomes. Or, in other words, if we would not, if we would do business like other men, receive much more for our services than we now receive.

Dr. C. F. Taylor, in the "Medical World," March, 1902, in an article entitled, "The Medical Profession as an Economic Factor," says that on a conservative estimate there are 135,000 physicians practicing in the United States, and that of these, 100,000 receive less than \$1,500.00 annually. This includes the beginners, and, by the way, many of us have painful recollections of that stage. The income of many is \$500.00 or \$600.00, and this includes those at the other end of their professional career who are either voluntarily letting go, or involuntarily losing their grip. He ends by stating that 100,000 of the 135,000 receive annually about \$1,000.00. We now have 35,000 left, and Dr. Taylor estimates that 2,000 of these receive \$1,500.00 to \$2,500.00, and that those who collect \$2,000.00 to \$2,500.00 are said to have a large paying practice. So you see, gentlemen, something like 2-3 or 3-4 of the doctors in the United States receive about \$1,000.00 a year from their practice, and yet they book \$2,000.00 to \$4,000.00. Compare this with mechanics and other laboring classes, and you will find that there are brickmasons and blacksmiths who are making more money than many doctors, and they don't have to work seven days in the week, with many nights for good measure, as doctors do. Dr. Taylor also states that these 100,000 doctors book two to three times the amount they collect, only collecting about 40 per cent to 60 per cent of what they earn. Right here I want to say that many doctors are half crazy about how much they can book, and absolutely indifferent about what per cent of their earnings they collect. Is it any wonder that many doctors die poor? A doctor will earn \$1,000.00 and collect \$400.00; or, he will earn \$2,000.00 and collect \$800.00. Yet, he works for the same people that the farmhand, the brickmason and the mechanic works for, and they receive every dollar they earn. One reason for this state of affairs is that the doctor will work whether he is paid or not, and the mechanic won't, and *the public knows it*. There is not a factory, a mercantile establishment, or a bank in this town

that would not have to close its doors in sixty days if it were as indifferent to its business interests as doctors are to theirs.

The Methodist circuit rider is the only fellow I can think of who can in any way compete with the doctor as a business man. He and the doctor must preach and practice without money and without price, for what does the price amount to, if you never get it? I believe the preacher really outstrips the doctor in the race, for he goes over his circuit and eats up all the yellow-legged chickens in the neighborhood, and when the supply is exhausted, he moves to fresh and better pastures. And after he has grown too old to work and is no longer able to admonish the people to walk in the straight and narrow way, he is put on the superannuated list and is taken care of in his old age by a special fund which is set aside for that special purpose—a very wise provision made for these honored servants of God.

But how about the doctor who has traveled a path almost parallel with that of the preacher? Old age will as surely come to the doctor as to the preacher, but the doctor has no special fund set aside that he may be cared for in his old age. The lesson is plain. Doctor, you must yourself prepare for old age when you are in active service by being more business-like in your methods. You earn enough money, but you do not try to collect it as you should.

Many doctors are not business men from force of habit. The poet says:

"Habit with him was all the test of truth;
'It must be right, I've done it from my youth.'"

Many men begin the practice of medicine, believing that they must live for their profession alone, and they learn too late in life (if at all) that they must live by their profession as well as for it. So they work on, year in and year out, many of them not knowing how much they book, others never realizing what per cent they collect, and some few going so far as to keep no books at all.

Some doctors allow their bills to get so old and so large that their clients either cannot pay them, or else they feel that the doctor did not do much any way, and think they are charged with more visits than the doctor made, and will not pay. Sometimes they proceed to settle by changing doctors, and frequently for good measure for your services (maybe rendered some dark, rainy night after a hard day's work) take great delight in entertaining any one who will listen to a recital of all the mistakes, both real and imaginary, that you have ever made, calling attention to every patient you have lost in five years. This kind of a client always emphasizes the

fact that you are a sure shot in pneumonia, typhoid fever and flux, but it is no more than could be expected; he has gotten it pretty straight that you had lost nearly all your practice, and so forth. If you had felt this fellow's pulse with one hand, and his pocket-book with the other, he would have been a life long friend and patron. There is no disputing the fact that "Short settlements make long friends."

Some doctors are not business men for fear it will make them unpopular and lose them patronage, but that is a great mistake for the public admires a business man in any calling and will respect you more and patronize you longer if you conduct your business on business principle. The doctor who is the best business man holds his practice longest, for the reason that the doctor who toils from early morn till late at night, through the broiling sun of summer and the chilling blast of winter, and hasn't the business tact to collect for his services, sooner or later loses interest in his work and comes to the conclusion that the public does not appreciate his services, so he quits buying the late medical works, never takes a post graduate course, and stops taking the medical journals. Your best friends and patrons will notice these things first, and one by one they will drift to the man who is interested in his work and who is qualified to render such services as the exacting public demands. I believe you will all agree with me as to the truth of this statement.

If we, as doctors, do not change our methods of doing business, I am afraid we will be "Cold when the winter winds blow, and hungry when the summer corn ripens," and it will be said of us: "Well done, thou good and faithful servant; you have been ruler over the pill-bags, lo, these many years! Enter thou into the poor-house that was prepared for you from the days of Hippocrates."

CYST OF THE KIDNEY—A CLINICAL CASE.*

By DR. J. GARLAND SHERRILL, Louisville, Ky.

Best, J. W., white, aged 44, physician, Greensboro, N. C. This patient was first seen Friday, February 24, 1905, in consultation with Dr. J. W. Long. The following history was elicited: In 1886, while living in a malarial region a mass was noticed in the left side of the abdomen and was taken to be an enlarged spleen. This swelling disappeared after a time, and the patient having changed his residence, he passed a very comfortable existence. About six years ago he again noticed a tumor in the left abdomen; this also

disappeared after a time. For twenty years he has not passed a fully normal quantity of urine, but so far as he could tell by inspection the urine was normal in quality. On the night of the 23rd following an examination of the mass a considerable quantity of bloody urine was discharged. The present attack dates from February 16th at which time he was seized with a very severe pain in the left side of the abdomen which persisted until I saw him. Examination revealed a tumor in the abdomen extending from beneath the rib margin to within two inches of the iliac spine. It was smooth, rounded and somewhat movable. Fluctuation was readily detected and the area of dullness extended over the loin beneath the ribs and over the entire tumor except along its outer portion where the colon: resonance was elicited. A diagnosis of hydronephrosis was made, and the blood in the urine was supposed to have resulted from displacement of a stone by manipulation of the mass in the examination, allowing the passage of the blood fluid. There was no elevation of temperature and the patient's general condition was fair, although he showed the effects of the loss of sleep. We were unable to examine with the cystoscope as there was no instrument at hand, and the indication for operation seemed so clear that the patient himself was anxious for it. We, therefore, did a nephro-urectomy through an anterior incision in the left linea semi-lunaris, splitting the posterior peritoneum internal to the colon. This incision allowed good access to the tumor and it was separated from the surrounding tissues, the vessels were tied and the kidney removed with a considerable portion of the greatly dilated ureter. The ureter readily allowed the thumb to enter its lumen, and was about the size of the small intestine, the dilatation extending throughout its entire length except at a point about two inches above the bladder where it was narrowed so that the end of the finger was barely admitted. At the lower end of the duct a number of stones were found, forty-one in all, which were the cause of the obstruction. These were faceted except one which was plugging the opening into the bladder; this was olive shaped and slightly grooved as though a channel had been left for the escape of the urine. We considered that the olive pointed stone was the original cause of the obstruction, but in order to determine the presence or absence of stones in the bladder, this organ was explored by passing a probe through the ureter. A ligature was placed upon the ureter low down and the stump dropped and no effort was made to remove the entire duct. The wound in the posterior peritoneum was closed and the abdomen sutured without drainage.

* Reported to Jefferson County Medical Society, April 18, 1905.

During the first twelve hours only four ounces of urine was passed; this was increased during the second twelve hours to fourteen ounces. Considerable blood was present in the secretion, and while the quantity of blood diminished as that of the urine increased, it had entirely disappeared when I saw him the last time on March 1st. His temperature up to that time had not been above 99, and his pulse was normal in frequency and of good volume.

My reason for selecting the trans-peritoneal route, were, the large size of the tumor and the apparent absence of infection as shown by the absence of fever, etc. The fluid contained in the sac was very dark, bloody, and showed a large amount of albumen; about six quarts of fluid was present. Thirty gallons is the largest amount reported as present in any case.

The later history of this case so far as I can learn, is that the man had been able to resume his occupation and is to all appearances in good health. The risk of going in front and making an incision in the front of the abdomen is the only thing I believe that might be criticised in the operation. I believe there would have been considerable difficulty in operating through the loin because of the large amount of fluid in it and the dissection necessary to get the stones from the distal end of the ureter. The fluid escaped during the manipulation of the tumor. I made the dissection with the hand and made it readily. As to getting the mass out of the abdomen, it was a very large tumor and the fluid escaped in such a way that there was practically no contamination of the peritoneal cavity, the wound margins being pressed down against the tumor. The fluid contained in the sac was apparently bloody urine, but no analysis was made of it. In addition to the stones found in the ureter about ten were counted in one of the pockets or sacs in the kidney—probably dilated calices. You will note the small size of these stones which I believe were uric acid stones. The uric acid stones are usually small and faceted and have about this color. Phosphatic stones have the appearance of chalk, while oxalate of lime deposits have a rough appearance which gives rise to the term mulberry calculus. Although we have not examined chemically to determine the character of these stones, they seem to be composed of uric acid.

Dr. Abell:

Dr. Sherrill's case illustrates very beautifully the pathology following kidney stones, particularly when there is obstruction caused by the stone passing down into the duct itself. There can be no criticism of his treatment. Personally I prefer to operate through the

lumbar incision and remove the fluid through a trocar and canula. This allows the mass to become so small as to afford no difficulty in this way. With the stones situated low down in the ureter, the extensive dissection that would have been required in their removal would have been a distinct disadvantage in this case, so that the selection of the abdominal route in this case as the result has proved was the wiser thing to do.

Dr. Sherrill, closing:

There were a few points of interest that struck me in this case and one of the greatest interest was the fact as expressed by Morris that stone in the ureter completely blocking the canal is never followed by hydronephrosis. On the other hand if there is intermittent obstruction there is always hydronephrosis. I account for this by the fact that spasm of the ureter occurs when it is completely blocked and the kidney refuses to secrete the urine. It is a fact that whenever the ureter is completely blocked that hydronephrosis does not occur.

There has been quite a diversity of opinion as to the factors working in the production of stone and many have claimed that it can only occur by the deposit of colloid material, pus or some substance in the pelvis of the kidney.

I am much gratified with the result in this case, and at the time of the operation I was uneasy that the patient might have stone in the opposite kidney that might cause him to lose his life. There are cases reported of stones on both sides, and there is always a chance that there is trouble in the opposite organ.

EXTRA UTERINE PREGNANCY. FAT- TY DEGENERATION OF UTER- US. SARCOMA OF JAW.— PATHOLOGICAL RE- PORT.*

By IRVIN ABELL, M. D. Louisville, Ky.

This specimen of extra-uterine pregnancy is not shown so much because of the beauty of the specimen, though it is a pretty one, as for the clinical history of the case. It occurred in a woman of 27, perfectly healthy, never had had any serious illness, absolutely no history of pelvic disorder; she was married last August, had missed no period, commenced to flow in November two days following her regular period, not free, not excessive; she was under the observation of Dr. Ritter for three or four weeks before I saw her. She never passed any decidua, had no nausea, there were no changes in the breasts

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and none of the evidences of pregnancy which frequently accompany tubal gestation. The only evidence she gave at all was a gradual enlargement occurring in the left side of the pelvis. The tumor increasing in size, the diagnosis was agreed upon by both of us and this specimen was removed.

This second specimen I take to be fatty degeneration of the uterus removed from a woman of 42 years of age who had never been pregnant until within a year preceding the removal of the specimen. She carried the child six months when she miscarried; following this miscarriage she complained of continued pelvic pain—so much that she was practically an invalid. On placing her under an anaesthetic for an examination we found a very small uterus; she had had considerable menstrual irregularity and considerable pain. We used a homostatic forcep for dilating the cervix and ruptured the uterus, using no more force than could be exerted by index finger and thumb of same hand on each blade. You can see where the uterus is torn through. You can pass a finger through the wall of the uterus like liver tissue; none of the ovaries left and the tubes are extremely small. I take this specimen to be one of fatty degeneration of the uterus following this six months pregnancy.

This third specimen is one of sarcoma of the jaw, the inferior maxillary, removed from a woman 36 years of age. The history of the case will probably interest Dr. Roberts. She was a young lady employed at Dearing's she had a tooth pulled 13 years ago and following that removal she had considerable trouble with the alveolar process. Five years ago this alveolar process was curetted and later in the same year a section of the process was removed; this gave her complete relief and she had no further trouble till three years ago; at that time she noticed that the jaw on the affected side gradually enlarged, which in the last year has been exceedingly rapid until in the third week of January it was removed. The growth only extended as far back as the angle and the condyloid process was left in place. The growth in front extended beyond the symphysis and it became necessary in order to remove it to take away the geniohyoglossus muscle. The tongue was controlled during the operation by passing silk sutures through the extremity of the tongue and holding it out of the mouth; after the operation the suture was drawn to the outer side of the angle of the mouth and fastened to the side of the face by adhesive plaster. In the first 42 hours she had one or two distinct attacks of choking from the tongue falling back into the mouth; it was only by putting her on her face and making traction on the sutures that

she was able to breathe at all. The wound was closed without difficulty and there was no trouble in removal. The cysts in the growth were filled with fluid.

DISCUSSION.

Dr. Frank:

Referring to the specimen of fatty degeneration of the uterus so-called, I think this is a most interesting case. I would hardly be willing to accept the diagnosis of Dr. Abell until it is confirmed by a microscopical examination of the specimen. There is very little literature on this subject, but I believe that this condition may occasionally occur in conjunction with fibroid tumors undergoing fatty degeneration; I can also see how it might be possible following labor, the condition being somewhat analogous, how involution may take place with fatty deposition and absorption of the muscular tissue, and how this process might be carried on to this extent. However, six months would seem to be an exceedingly long time for this to continue. I do not see any other explanation for this condition unless it can be due to a chronic septic process. I can see how there might be a chronic metritis where the infectious process is of a mild degree in which we might have a soft uterus of this character as would occur following labor or abortion, or some septic process.

The specimen is a most interesting one and quite an unusual condition.

Referring to the case of ectopic gestation, I agree with Dr. Abell that some cases exhibit few symptoms. I remember seeing a case of Dr. Tuley's that gave about the same history that this case gave; in fact the symptoms were very slight and of that character which are common in abortion at this time and this woman was treated thinking that was her trouble. The woman had no pain at all and walked to my office to consult me as to a suitable time to go to the infirmary to have the uterus curetted. Upon examination and inquiring into the history of the case I got a typical history of abortion, having missed her period for a week, then a recurrence of the flow and then pain. I found a globular mass on the right side which upon further examination and further inquiry led me to believe that she had an ectopic gestation and such it proved to be. I believe I have made the statement previously to the members of this Society that every case of uterine bleeding thought to be due to abortion should certainly be looked upon with suspicion and that the occurrence of ectopic gestation should be kept in mind. I believe that a great many cases are treated as abortions that are ectopic gestations. Cases may get well without operation but this does not mitigate against operation and does not mean that they should not be operated on.

The diagnosis is not always easy, the tumor at times being small and for that reason it is often overlooked and even escapes discovery entirely, and again we are usually looking for normal cases and do not suspect these abnormalities. These cases are frequently not even examined.

There is no subject of more interest than extra-uterine gestation. One of the positive signs would be the occurrence of decidual cells to be gotten from the uterus and subjected to a microscopical examination. I believe in more instances we should carry this examination out.

Dr. Robertss

In reference to the jaw case reported by Dr. Abell, it has been many years ago, I do not know how long, since I operated on her. I removed a section of the bone and was not quite certain at that time of the nature of the growth. I gave it to a microscopist for examination but never heard from it. I never saw her after she got well. It is a little remarkable that she should have remained so long without a recurrence.

In reference to the extra-uterine pregnancy mentioned by Dr. Abell, I showed at one of the medical societies a few weeks ago a specimen that I removed from a widow lady, 25 years of age, who was perfectly regular in her menstrual periods, the last being on the 29th of January and I operated early in February. Two weeks before I saw her she had a sudden and severe pain in the right side—so severe that she had to be assisted to bed and since then she had a good deal of pain and tenderness on the right side; when I saw her she had no fever but there was tenderness and muscular rigidity on the right side and a digital examination revealed tenderness along the right tube. She was so sensitive that I could not make a bilateral examination satisfactorily. So I opened the abdomen under the advice that I would remove whatever was necessary. When I cut down to the peritoneum it was very dark in color and when I opened it blood gushed out. I grabbed down on the right side and caught quite a mass which proved to be the ruptured tube, and while tying that off the foetus floated out of the cavity. She also had an appendix that was so very strongly bound down that I pulled it out of its serous coat without attempting to remove the adhesions. Patient made a good recovery.

Dr. Frank:

I would like to call attention to one point in connection with ectopic gestation. In some cases it may go on without any evidences of anything being wrong. That is one thing that should not be lost sight of in making a diagnosis. I reported to this society such a

case and showed the specimen and there were absolutely no indications of anything being wrong until spurious labor commenced; the false labor lasting for several days, the body of the foetus and the uterus afterward being removed. These cases should be remembered in making a diagnosis of ectopic gestation.

Dr. Spiedel:

I would ask in regard to the specimen of fatty degeneration of the uterus as to whether a microscopic examination was made of a section of the uterus. That would perhaps simplify the matter as to the softened condition of the uterus. Then of course the general condition of the patient would be of interest whether she was a fleshy woman, or thin, pale and anaemic. The fact that under ordinary circumstances involution takes place by a process of fatty degeneration would lead one to suppose that this is simply a condition in which the process went further than usual and produced this condition.

Dr. Frank:

Does this condition occur after labor?

Dr. Spiedel:

We find after labor that the uterus is in an unusually soft condition, and it is supposed that the hypertrophied tissue disappears by fatty disintegration. I cannot say that I have ever seen this condition after labor.

Dr. Lucas:

I saw a case operated on on the 4th of July. This patient expected to be confined the previous December. When expected time came the pain was such that she thought nothing about it. During the month of — she flowed every day in the month. When the flow ceased no more attention was paid to it and she was surprised not to have had any pain. She went until the following June—fifteen months after conception—when she had a perfectly normal period and on the 4th of July she was operated on and a fully developed foetus was found in the abdominal cavity in a mummified condition.

Dr. Abell:

I do not believe this uterus to be a septic one. She had no adhesions in the cavity, absolutely no discharge from the uterus, gave no history of infection, as I asked her particularly in regard to the temperature and in regard to the discharge following this miscarriage. Her menstrual life was perfectly regular until after the delivery of this child; there was no pain present and following the delivery of this child on the ninth or tenth day she was without temperature and without discharge except the natural lochia. She complained of the symptoms of pain in the pelvis and painful menstruation, and I was unable to make out the condition on account of the extreme tenderness, until under an anaesthetic, when in attempting dilatation preliminary to cur-

ettment the friable, softened condition of the uterine tissue was shown by rupture.

Dr. Ap Morgan Vance:

I had the pleasure of seeing this jaw case with Dr. Abell and I believe we should strain a point and operate on these cases because it was about as forlorn an outlook as we see it at any time. I am glad he was able to remove this growth. I advised him to remove it because I had had some of the same kind myself. One woman I operated on three years ago reminded me much of this case. She told me that 20 years before Dr. Sloan, of New Albany, Ind., did through the mouth without an anaesthetic about what Dr. Roberts has done in this case, and when I removed the recurrent sarcoma there was no bone back of the angle. He had removed it through the mouth and without an anaesthetic; how he did it I do not know.

The specimen of the uterus removed from a woman who had miscarried at six months is an interesting one. I believe that it is some form of chronic sepsis rather than fatty degeneration, though that may be true. I think that these symptoms following an abortion show a septic condition rather than anything else. I had a case some time ago much earlier after a normal labor where sepsis occurred, and in endeavoring to cleanse out the pelvis I had everything separated except the right tube when the top of the uterus came off and this was as soft as so much liver tissue. I took out the uterus and the woman recovered. But after the hysterectomy was done upon cleaning up the case about a half pint of pus was lying between her legs on the table. It had been squeezed out of the uterus by the manipulation above. The peritoneum was so rotten that it could not be sutured in the ordinary way and we went wide of it leaving the catgut sutures as it were laced across the stump. I believe in some cases of miscarriage followed by sepsis we may have changes as we have here.

CESAREAN SECTION—A CLINICAL REPORT.*

By Dr. LOUIS FRANK, Louisville, Ky.

This woman came under my observation about six weeks ago on Monday. I saw her with Dr. Peake, Dr. Solomon and Dr. Bronner.

The history is that she is 26 years of age, has been married three or four years. About a year ago she became pregnant and was delivered at that time by a craniotomy and an embryotomy of the child. She recovered from that and became pregnant again. She went into labor six weeks ago Sunday night.

I believe no examination was made at first; the membranes ruptured at 6 o'clock in the morning at which time Dr. Peake saw the case in consultation with Dr. Bronner. An examination was made and it was seen at once that the pelvis was very much contracted. It was thought best that forceps be applied and an attempt was made to deliver her with forceps but it was not successful. The forceps were applied above the straight but they slipped off, and a further and more careful examination led the gentlemen to believe that the woman could not be delivered in this manner. She was sent to the infirmary where I saw her at 1 o'clock and did a Cesarean section, closing the uterus by deep sutures of Pagenstecher thread and using the same material in the superficial sutures. She was considerably distended for a few days following the operation; this caused a great deal of discomfort and was finally relieved by repeated doses of the sulphate of eserine, about 1-40 of a grain every two hours for two or three doses. After that her progress was very satisfactory. She ran a little temperature at the time and three weeks later at the time of the removal of the first dressings the union had been complete. I noticed in the right iliac fossa quite a mass. From the temperature I did not believe that there was any pus here and she was discharged from the infirmary about a week ago. At the time the mass was noticed a vaginal examination was made and the measurements taken which was not done at the time the woman was brought into the infirmary.

A digital examination revealed a sloughing surface extending into the body and involving the lower segment of the uterus; there was a great crater-like excavation here like that we feel after curetting a cancerous mass. I supposed that this was probably due to the trauma inflicted by the forceps.

The child at delivery presented over the right eye, as will be noticed here at the site of this scar, a reddish mark and a decided depression which proved to be a fracture and behind where the other blade of the forceps was applied was another contusion which later suppurated and opened and discharged probably for ten days. The anterior space where the fracture was, also sloughed out; the whole area sloughed out leaving the dura exposed. These wounds have healed and the child is well and all right.

The measurements of the pelvis between the crests was 24 centimeters; normal 26. Inter-spinous 22.5 centimeters; normal 26. The antero-posterior diameter was 11 centimeters, showing a diminution of 9 centimeters. The inter-trochanteric measurement was 29 centimeters; the normal should be 31 centimeters. The diagonal conjugate measured, giving a liberal allowance, 6 centimeters the

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normal should be 11. These measurements show the pelvis contracted in all diameters, but exceedingly in the antero-posterior diameter.

I did an ordinary Cesarean section on this woman, but I question whether it is the best thing to do in a woman who has been some time in labor under these circumstances and surroundings, it being impossible to get things clean under these circumstances. With the consideration of the transportation to the infirmary and the danger of infection, I think probably the best thing to do in these cases would be to do a Porro operation instead of a Cesarean section and not run the chances of septic infection as we have here. The ideal thing is to do the operation when the woman first goes into labor. These patients should be removed to an infirmary and labor awaited with preparations for doing an operation. The trauma here must have been extensive and I know that this woman was handled carefully and the fact was kept in mind that she probably could not be delivered by forceps because of the operation done previously. The application of the forceps high up and the attempt to deliver must have had a bad effect on the tissues and this probably produced the necrosis which took place here and I believe from this source the infection occurred. There was no sign of peritonitis except in the first 48 hours when the distension was so marked that she looked like she was going to burst open, but we resorted to eserine and croton oil and relieved it.

DISCUSSION.

Dr. McMurtry:

It is something more than an ordinary circumstance for a case of this kind to be presented to any medical society and I think it should receive the consideration that it deserves from the society; and it has a great many valuable lessons connected with it. In the first place Dr. Frank should be congratulated on his management of the case as well as the operative procedure itself, and, in carrying the patient and the child through all these perils to a safe issue, as we see before us, he deserves to be congratulated.

In regard to the operation of Cesarean section, the improved, modern Cesarean section, it is undoubtedly going to have an application that is increasing all the time and will be resorted to in the future more promptly than it has been in the past. The great trouble with these cases in the past has been that the major operation of Cesarean section has only been resorted to after all other means failed, after efforts had been made with the forceps and the patient exhausted, and then as a last resort the major operation is employed

which should have been employed earlier, when the patient was able to stand it. The patient before us demonstrates that the modern Cesarean section, even when the patient is considerably exhausted, can be carried to a successful termination, but it is far safer when resorted to promptly and due consideration taken of the obstacles to natural delivery.

One important point illustrating the success of this operation in the hands of skillful abdominal surgeons, is that it is advocated by some of the best authorities that this operation should be applied in cases of placenta previa, especially where the placenta is central, because the mortality after placenta previa is very much greater than that after Cesarean section.

In this case I think Dr. Frank carried out the proper procedure. In his closing remarks he stated that he thought it probably might have been better if he had done the Porro operation instead of taking the risk of encountering the difficulties that did follow the Cesarean section. With the condition that the cervix was in as the result of the traumatism from the use of the forceps it would have been only possible to do a complete hysterectomy. I doubt very much if the cervix would have made a safe pedicle, and if he had done the ordinary supra-vaginal amputation of the cervix as done in the modern hysterectomy, he would have probably lost the patient from sloughing of the pedicle that occurred in the cervix. If he had done a pan-hysterectomy he would have been compelled to keep the patient under anaesthesia such a long time that that would not have allowed us to congratulate him this afternoon upon such a perfect result.

I presume that in this case Dr. Frank took occasion to protect the patient from a recurrence of this serious condition, though he did not state this in his report, by taking out a section of the Fallopian tube or removal of the tubes.

Dr. Cheatham:

Has not a doctor in the East had this operation performed on his wife five times?

Dr. McMurtry:

There are records where the same patient has been operated on several times. I know of an instance where the operation has been performed three times on the same subject.

Dr. Peake:

I wish to make some remarks. To start out with, I think that Dr. Frank might have left the idea that I was the one who advised the use of the forceps in the delivery of the child. Dr. Bronner was in charge of the case; he was acting for Dr. Solomon. He found it would be necessary to have assistance and Dr. Solomon not being where he

could be had, I was sent for. After making an examination I was satisfied in my own mind that the child could never be born; after making the examination Dr. Solomon came and I told him that I thought a Cesarean section should be done without using the instruments because the instruments would produce more or less trauma particularly in a contracted pelvis such as this was. Dr. Solomon suggested that we try the instruments and they were sterilized and every precaution taken under the circumstances to prevent infection. Dr. Solomon skillfully introduced the forceps and made traction. After satisfying himself that he could not deliver the child he asked me to try and see if I could do so; I made same traction without result and suggested that the patient be moved at once to an infirmary. The patient's brother and some other members of her family insisted that she be moved to an infirmary and asked me to perform the operation. With that understanding she was taken to the infirmary. Some of her friends insisted that Dr. Frank see the patient with me. Dr. Frank having operated on these cases, I consented, Dr. Frank leading in the operation and I assisting him.

Now, there is this much to say of the operation. I regard the operation done by Dr. Frank as one of the most skillful operations I have ever seen done. I would also say that this was a placenta previa, not in the sense that a placenta was below the head, but the placenta was beneath the incision. From the time the knife struck the abdomen until the child was in the hands of Dr. Solomon was less than two minutes, and just as soon as the child was delivered I delivered the after birth.

Another point that Dr. Frank did not mention was that the head was so incarcerated in the cervix that the cervix was torn some in getting it out. Beginning with the incision the uterus was torn to the right about 1 1/2 inches, this was all closed with the rest of the uterine incision. Another point I have been thinking about. Having done a good deal of abdominal work, it seems to me that the trouble the patient had in this instance might have come from some of the contents of the uterus leaking or getting into the free peritoneal cavity. Now I know that Dr. Frank in this instance protected so far as it was possible the peritoneal cavity with sponges, but there is a question whether it would not have been better—and I would like to hear that point discussed—to lift the uterus and bring it out through the incision which I think could have been done easily or comparatively so, and then have used a rubber dam to protect the peritoneal cavity from the excretion of the child and from the amniotic fluid of which there was a good deal in this instance. Un-

der the circumstances in this case some bacteria might have reached the uterine contents; not only this but some of the amniotic fluid in the peritoneal cavity might have acted as a foreign substance. We know that normal saline solution left in the peritoneal cavity may excite some trouble. There was I think an inflammatory condition about the cervix and the vaginal vault that caused her temperature and a good deal of the trouble; but some of the intra-peritoneal trouble might have been the result of some of this fluid remaining in the free peritoneal cavity.

It seems to me that the only other point about the matter is this:—we know that the more rapidly we work and the more rapidly we deliver the child the better chance we have of saving the child. Now, if it does take too much time to get the uterus out of the cavity before making an incision into it, it seems to me that the procedure that Dr. Frank did was the best. I would like to hear Dr. Frank speak of this point when he closes.

Dr. Frank. (Closing):

The first thing, in answer to Dr. McMurry's question; this woman was rendered sterile. A section of the tube on either side was caught up and ligated with the same Pagenstecher thread.

I think Dr. Peake 'misunderstood me. I did not mean to leave the impression that the manipulation that was done was more violent than is consistent with an attempt at delivery with forceps and I mentioned that injury could be done under the most careful precautions and with the utmost cleanliness and care on the part of the operator. We know how difficult it is under the best surroundings to get the patient clean and avoid infection. I say this because Dr. Peake has gotten the wrong impression.

I think Dr. McMurry's point in regard to the Porro operation in this case is exceedingly well taken. We would have had some difficulty to contend with and probably of a worse nature than occurred in this case. I recognized the difficulties we would have encountered in this case in attempting the Porro operation.

In regard to the use of the rubber dam I have not used it in any of the operations I have done. I believe it is a procedure that may be carried out if one believes that there is a danger of the uterus or its contents being infected from the previous manipulation. I think we should press the uterus wall into the incision and press the abdominal walls down behind the uterus instead of using the rubber dam. For that reason, though it may be a good thing, I do not believe it should be used except for a uterus with septic contents. I have no personal experience with it.

One point called to my mind by Dr. Bullitt,

for the control of bleeding was to make traction upon the uterus itself; this controls the hemorrhage very excellently. I did not believe it would work by traction upon the uterine arteries but found in a subsequent case where I tried it that this stops the flow of blood and I question whether it causes any more harm than pressure.

I am glad Dr. Peake mentioned the tear in the uterus. This head was pushed down into the pelvis and considerable traction was necessary to deliver it; the head came out with a sudden rush and the uterus was torn diagonally across. This was closed and I do not believe it complicated matters so far as recovery is concerned.

I do not believe that the subsequent trouble that the woman had was due to the escape of amniotic fluid or meconium that soiled the peritoneal cavity. I noticed in another case that this distension was very marked. These patients distend rapidly, in 24 hours the abdomen being as large as before delivery. This is the only case in which we have had any trouble in getting the bowels to move and the distension to disappear.

I was ably assisted by Drs. Peake and Spears, the bleeding being nicely controlled by the manual compression by Dr. Spears.

PATHOLOGICAL SPECIMENS—DERMOID SARCOMA—EXTRA-UTERINE GESTATION.

By DR. FRANK.

I have two specimens to present. Some of the gentlemen have seen them before. I thought they would be of interest to bring before the Society. The first specimen is one that I removed from a patient February 9th. Patient E. S., aged 22, gives history of having given birth to one child, since which time she had been in very good health until the appearance of the tumor for which I saw her. The tumor rapidly during the past eight weeks previously, had grown slowly, began in the right groin and was slightly painful. It grew slowly until eight weeks before the time she came to me. This tumor had been growing quite a rapidly during the past eight weeks previous to the time I saw her and had in that time more than doubled its size. The tumor arose, according to the patient's statement, in the left groin near the upper part of the pelvis and grew downward so that at the time to which I refer, in February, tumor had passed the median line the right margin being at the outer border of the rectus muscle on the right side; below it extended downward and dipped into the pelvis; posteriorly to Poupert's ligament and above to the umbilicus. The examination showed that it was unattached to the uterus, was movable slightly, and the abdominal wall, at least the skin, be-

ing movable over the tumor. It was determined upon vaginal examination that the tumor was not movable with the uterus. The umbilicus as well as the median raphe were pushed over toward the right side, showing that the tumor was evidently well in the abdominal wall. I thought we had to do with sarcoma probably of the abdominal walls. I was not sure of the diagnosis but advised operation.

I made an incision toward the median line where the rectus muscle should have been to the left of the umbilicus. After cutting through the superficial fascia, I came down upon this tumor and found that it lay on the peritoneum; the subperitoneal fascia and the muscle had entirely disappeared. There was nothing except the superficial fascia and skin over the tumor. Fortunately, though I thought at the time unfortunately, I got into the peritoneal cavity. This proved to be an advantage because it allowed us to more easily dissect off the peritoneum. Above the tumor the rectus muscle could be seen going out, and the oblique and transversalis also passing into the tumor, we clamped and cut them off, taking part of the muscular structures away with the tumor itself. It came out of the pelvis with comparative ease; it dipped down deeply into the right iliac fossa. Posteriorly this part of it extended back to the kidney region. I thought probably it was attached to kidney but that was not the case. I separated the tumor easily, except posteriorly where it was attached to the fascia and the anterior superior spine of the ilium.

The tumor had broken through the capsule in places. I submitted a number of sections to microscopic examination. In conversation afterward with Dr. Bullitt he told me of a similar case that had been reported by Dr. Bonifleur of Chicago as desmoid sarcoma. The name had been applied by Muller to fascial sarcomata and Senn also suggested it as the best name for these tumors. In Senn's description he says some are malignant and have a tendency to recur; this was also noted by Bonifleur in his report. In his case the growth began in Poupert's ligament and was removed with a part of the abdominal wall. The abdominal wall in his case was repaired by a plastic operation. In looking up the subject Senn mentions four cases of his own. The tumor was first described by Nelaton as a peculiar deep-seated union of the abdominal wall. Guerrien collected forty-two cases, thirty-nine of which had occurred in women. In Senn's series of four cases they were all in women and the authorities agree as Senn says that they occur with greater frequency in women than in men. In the cases in women there is a history of injury preceding. This woman gave a history of a blow on this side

The history of most of these cases have been practically the same. They begin in the deep fascia pushing the peritoneum in front of them; the muscles and the deep fascia are incorporated in the growth and only the superficial fascia is left. The intestines and colon were pushed over to the median line. There is no recurrence in this case up to this time. It does not show as much tendency to recur as we would suppose. This shows exclusively sarcomatous tissue.

I brought the fascia together with chromic catgut and closed the skin with plain catgut. A small gauze drain was brought out in the kidney region, and another one anteriorly just above the symphysis pubis. These were removed in 24 hours; she ran a little temperature for a few days. On the fourth day some serum was cleaned out behind; there was no discharge after this, the wound healing by primary union and she was discharged from the infirmary the third week. There was no trouble afterwards—no trouble from the abdominal muscles; they are probably lax but there is nothing like a hernia, due probably to the absence of the muscles.

The other specimen that I wish to show has also been shown to one of the societies here and I thought it would be of interest to show it here for, as one authority says, they are of some interest because they are somewhat rare, though they do occur with sufficient frequency to make them of interest. This specimen was removed from a woman aged 30. O. R. operated on Feb. 23rd. She had borne six children. In December of 1903 she had an abortion at the third month. She menstruated after that in January and also in February, 1904. She menstruated from Feb., 1904 until July of the same year; she menstruated in July for a day or two; the same thing in August and in September, while in October she felt the movements of a child. She continued normal until the latter part of October when with some violent movements of the patient there was a recurrence of the flow and the movements of the child ceased. She went along then until December at which time she menstruated normally, again in January and again in February about ten days previous to the time I saw her. She had lost between October and February 50 pounds in weight; she was quite a large woman. With this history we thought that we probably had to deal with an ectopic gestation and missed labor. I found a tumor in the abdomen from rib line to rib line. The tumor was hard and nodular and there was a distinct sulcus between this tumor and a mass below which extended to three fingers breadths above the symphysis pubis. Digital examination showed this last tumor to be the enlarged uterus; there was no communication with the other

tumor. A diagnosis of ectopic gestation was made with the child lying in the abdominal cavity and she was advised to undergo an operation.

In making the incision we came down at once upon this child lying in the amniotic sac in which it is still enclosed; the sac has contracted closely about the child and contained no fluid. The child lay in this position the head presenting to the woman's left and the buttocks to her right side. This entire portion of the right side of the child's head and the buttocks were adherent to the anterior abdominal wall and under the child were the intestines. The abdominal wall was thin and the umbilicus was very thin and it was easy to see that if this had gone on infection would have taken place with rupture at this point. The hand was passed into the abdomen and the child readily turned out. The intestinal adhesions were separated at this point and I went down into the right iliac fossa and found the remains of the placenta attached to the tube, ovary and broad ligament.

The woman as stated had lost 50 pounds and was not in good condition, the urine showing albumen and sugar in large quantities and casts of every variety, and not desiring to prolong the operation the cord was cut off close to the placenta which was quite small and the abdomen was closed in the usual way and she left the infirmary on the sixteenth or seventeenth day. The uterus had not gained normal size. I think her recovery was a very, very good one and I look upon the woman as well.

When this case was reported primarily there was some criticism that the placenta was not removed. I do not believe that the removal of the placenta in this case would have been a difficult matter under ordinary circumstances. Thrombosis having taken place there was no danger of hemorrhage, but the woman had lost 50 pounds and there were sugar and albumen in large quantities in the urine and I considered "discretion the better part of valor" and closed her up. The placenta has been taken care of.

In the April 8th number of American Medicine is the report of a case and statistics of cases operated on, in which the mortality was decidedly greater when the placenta was left in the patient. In the cases operated on in England and reported by Bland Sutton, this cut no figure at all in the cases in which the child had been dead where the placenta was left; the mortality was just as low as where it was removed. These records include all cases of abdominal pregnancy operated on with the child living or the child dead, but I hardly think we can make a fair inference of what the result will be if we take into consideration those where there is a living foetus

and those where it has not been dead sufficiently long for thrombosis to take place. We know that not infrequently with a living foetus the placenta has been taken care of. In this case there was no danger of hemorrhage. I did not feel like prolonging the operation and have the patient die. The result in this case has proved, not necessarily the wisdom of the course pursued, but that the removal of the placenta would not have given any better result than was gotten in this case.

I operated on a case similar to this one some time ago. It was an ectopic gestation of the subperitoneal pelvic variety in which the foetus had grown under the peritoneum so that the foetus was apparently in the abdominal cavity yet the foetus was behind the posterior layer of the peritoneum. In that case Dr. Holloway and I removed all the pelvic structures; we removed the uterus, tubes and everything. That woman made a good recovery. She had a fistula for two or three weeks following the operation. I believe in some cases this could be easily done and I believe where there are many adhesions to the tubes and uterus that the best procedure would be to do a supervaginal amputation of the uterus and take everything out. I think we should do what was best for the woman.

DISCUSSION.

Dr. Bullitt:

I had the opportunity of seeing one case of the character of tumor shown by Dr. Frank, some years ago and the microscopical examination in that case seemed to indicate that it was sarcoma, the cells being of the small spindle variety with a good deal of fibrous tissue in it. The tumor that I speak of occupied the same site, that is to say it was just above Poupart's ligament on the right side and in the case to which I refer it grew in front of the peritoneum. It was removed with comparative ease and a study of that tumor led to the knowledge of the article of Bouffleur, and in that way I happened to have a little knowledge of the literature at the time Dr. Frank spoke of this case. These tumors are very rare and they are as a rule benign but they do sometimes recur. We had the opportunity of seeing a second tumor that we believed to be of the character of this, but it turned out to be different from this tumor. It grew in the left groin. From an incomplete examination it seemed to involve the femoral artery, Poupart's ligament and the structures just above the ligament. But this tumor turned out to be a tumor that had its origin in the coat and sheath of the vein itself and it was a leiomyoma of the vein.

I was extremely interested in Dr. Frank's second case and I am at a loss to explain how

the foetus has become enclosed in this sac. The leg and arm seem to be in a separate sac. Certainly the case is a most instructive one.

Dr. Meyers:

I would like for Dr. Frank to tell the condition of the appendages in this second case.

Dr. Frank:

The appendages on the left side in the second case seemed to be alright. The uterus was large, as large probably as a three months' pregnant uterus. Over on the right side, the side from which the placenta sprang, the tube, or part of it, could just be seen above the placenta site which was deep down in the pelvis. I did not separate things here, not deeming it wise under the circumstances.

OPHTHALMIA NEONATORUM.*

By HILLARD WOOD, M. D.,

Professor of the Diseases of the Eye, Ear, Nose and Throat, University of Tennessee, Department of Medicine, Nashville, Tenn.

Ophthalmia Neonatorum has been selected as the subject of this paper, not because there is anything new to communicate upon it, but because, notwithstanding our very accurate knowledge of its etiology, pathology, prophylaxis and treatment, it continues to be, as in the past, of all diseases that affect human vision, the most prolific source of blindness. I hope by this paper to revive our interest in a disease which is depriving multitudes of their vision, blasting the fond hopes of parents, filling with gloom many homes, causing oftentimes self reproach on the part of the physician, and filling with pupils our schools for the blind.

In connection with ophthalmia neonatorum there are three facts which stand out with vivid clearness, viz.: first, that it is preventable with almost absolute certainty; second, that it is curable with almost equal certainty; and third, that, *nevertheless*, it causes more blindness than any other disease. To the medical profession, especially to those doing obstetrical practice, these facts are a reproach—a reproach which can not be wiped away by belittling the disease or by referring its treatment to some ignorant mid-wife. There is among the profession generally a disposition to underrate the gravity of this disease, and to carry out with languid interest, or more often to neglect altogether, its prevention and cure. As a result largely of this attitude of the profession we have a form of blindness which is not only the most frequent, but in some respects the most regrettable, for most other causes of blindness operate only in after years, leaving to childhood the aid of vision and its development, but the blindness from ophthalmia neonatorum extends from

* Read before Southern Kentucky Medical Association October 26, 1904.

the very beginning to the end of life.

Ophthalmia neonatorum is a purulent conjunctivitis of a new born child. Its common cause is the inoculation into the eyes of the child at the time of birth, of some pathologic discharge from the mother's vagina. This vaginal discharge may be squeezed into the child's eyes during the passage of the head through the parturient canal; or being smeared upon the lids may, after the head is delivered and the eyes open, find its way into the conjunctival sac. In a small per cent. of cases the inoculation takes place as late as 4 to 6 days after delivery and is then due to infection brought from the mother by means of soiled sponges, towels, bowls or fingers.

The vaginal discharge causing this disease is always a pathologic one, for a normal secretion does not cause the disease. The discharge is either gonorrhoeal or leucorrhoeal. Thus we have ophthalmia neonatorum divided into two types, or grades of severity; first, that due to gonorrhoea, or the gonococcus of Neisser, being the severe form, and closely resembling gonorrhoeal ophthalmia in the adult; and secondly, the leucorrhoeal or milder type. The majority of cases of ophthalmia neonatorum are due to gonorrhoea in the mother, and it is safe to assume this to be true in every case until microscopic, or other evidence has proven the contrary.

A study of the bacteriology of this disease brings out the interesting fact that quite a variety of germs are found to cause it. In all gonorrhoeal cases we have the gonococcus of Neisser, and finding these in the discharge establishes the gonorrhoeal nature of the disease. In non-gonorrhoeal cases the discharge may contain the Koch-Weeks bacillus, the staphylococcus; the streptococcus; the pneumococcus or the Klebs-Loeffler bacillus. Bail states that in Saint Louis a number of cases were found to be due to the bacillus coli communis. I know of no clinical proof of the statements often made by the laity that the disease is caused by bright light, or bathing the eyes with soap. Such theories are harmless and satisfy the laity, but the physician should not be deceived by them.

The period of inoculation is about three days, so that the disease usually develops on the third day after birth. Occasionally the development occurs as late as the sixth or seventh day. It is then due to infection occurring some days after birth. In rare cases the child is born with the disease already developed, the infection of the eyes having been antepartum, and due to the rupture of the membranes some days before labor, or to a very slow labor.

Usually both eyes are involved from the start, but in those rare cases where only one is diseased I have found it impossible to pre-

vent the infection of the other, the use of Bul-ler's shield, or other mechanical prophylaxis, so useful in the adult, not being practical in the case of an infant.

The usual symptoms of acute purulent conjunctivitis, such as swelling of the lids, redness of their margins, redness and swelling of the conjunctiva, the profuse purulent discharge, the restlessness, feverishness and evident suffering of the child, will not be dwelt upon. The one great danger of ophthalmia neonatorum, as of every other purulent conjunctivitis, is ulceration or sloughing of the cornea, resulting in its partial or complete destruction, with the consequent impairment of total loss of vision. This danger to the cornea is the greater the earlier in the disease the cornea becomes involved, and the lower the vitality of the child.

The diagnosis of ophthalmia neonatorum in a general way is so easy that an error need seldom or never occur. We have a new born child, with an inflammation of its conjunctiva, and a discharge of pus from its eyes. So far, however, the diagnosis is only half made. The question now arises, "Is it a gonorrhoeal or a non-gonorrhoeal conjunctivitis with which we have to deal?" The answer to this question is important both as to prognosis and treatment. If it is gonorrhoeal it will be more severe, more dangerous, more prolonged, the prognosis less favorable, and the treatment more heroic. If it is non-gonorrhoeal, or leucorrhoeal it will be less severe, of shorter duration and of more favorable prognosis.

In settling the exact nature of the ophthalmia a knowledge of the mother's condition, as to whether she has, or has not gonorrhoea is important, and in the absence of a microscopic examination is the most reliable evidence we have. To ascertain the condition of the mother, while usually easy, is at times a difficult or delicate matter. The easy, direct, and accurate way to settle this question is by a microscopic examination of the discharge from the child's eyes for the gonococcus of Neisser. Finding this establishes the gonorrhoeal nature of the disease, while its absence proves it to be non-gonorrhoeal.

The prognosis of this disease depends upon a variety of circumstances. When seen before the cornea becomes involved, and with an environment favorable for intelligent management the prognosis is good. I formerly taught and believed that with correct treatment every case could be cured, and vision saved entire. But one case seen several years ago, and treated by me in the most conscientious manner, and which resulted in the loss of about half of each cornea, taught me that some cases, even under the most orthodox treatment, will, by virtue of their very viru-

lent nature, result badly. Fortunately these failures need only be very rare and the above is the only one which I can recall in my practice. But any involvement of the cornea renders the prognosis grave, and the more so the earlier in the disease the corneal trouble occurs. Low vitality of the child is unfavorable as under such circumstances the cornea may slough entire. Another condition which bodes evil is a degree of ignorance, apathy or poverty on the part of the family, which renders effective treatment difficult or impossible.

The most important point about this disease is its prophylaxis. Since it is caused by the vaginal discharge getting into the child's eyes, its prophylaxis consists in either keeping the discharge from getting into the eyes, or, if it has entered, of washing it out, and disinfecting the conjunctival sac with a 2 per cent. solution of nitrate of silver. When a physician is called upon to take charge of a pregnant woman he should not only ascertain the condition of her general health, kidneys, etc. but among other things should learn whether there is a pathologic vaginal discharge, and if it is present he should adopt suitable means of irrigation or medication for its arrest so when the child is born there may be no discharge to infect its eyes.

Especially should this irrigation be energetic during the first stage of labor, and combined if need be with the use of the speculum and cotton mops to remove all pus from the vaginal folds.

In all suspected cases, immediately upon the delivery of the child and tying the cord, Crede's prophylactic treatment should be carried out. This consists of washing the child's eyes, and irrigating the conjunctival sac to flush out the pus, and next dropping into each eye a 2 per cent. solution of nitrate of silver, which by its germicidal property destroys any germ remaining. Crede's prophylaxis is successful with almost absolute certainty. When faithfully carried out it will seldom fail, even when the mother has a gonorrhoeal vaginitis. But while Crede's method is generally understood, and its success generally admitted, yet there seems to be confusion in the minds of some as to when and in which cases it is to be used.

It is now generally used as a routine practice in all lying-in establishments. It should, of course, be used in every case where a morbid vaginal discharge, whether gonorrhoeal or leucorrhoeal is known, or even believed to be present. And it should be used in every case where there are grave suspicions or doubts. On the other hand in private practice where the mother's condition is known to be healthy it may be omitted. But even in these cases the eyes and surrounding skin

should be washed, and the conjunctival sac irrigated before the general bath is given.

I would urge upon all those doing obstetrical work, the importance of always having a bowl of sterile water and cotton sponges ready before the completion of labor, with the same regularity that they provide a ligature for the cord; that the eyes of every child be immediately cleansed and irrigated; and in addition in all suspected cases a few drops of the solution of nitrate of silver be instilled; that this be done by the physician himself; and that under no circumstances should the water in which the child is later given its general bath be allowed to come in contact with its eyes.

When the disease has once developed its treatment involves the use of three remedies, viz., cleanliness; cold; and nitrate of silver. By cleanliness I mean hourly irrigations of the conjunctival sac to remove all pus. The fluid used may be sterile water; or salt solution; or boric acid solution. The composition of the fluid is of much less importance than the thoroughness with which it is used.

Cold is best applied by having small pieces of soft domestic one inch square. These are plastered over a block of ice, contained in a bowl, placed near the crib. These little squares of domestic are removed from the ice to the eye, where they remain only one or two minutes, and are then replaced by other squares, being themselves returned to the ice. This cold can be used interruptedly, as each alternate hour, or each alternate two hours. Cold is especially indicated in the earlier stages of the treatment and its virtue consists in making the child more comfortable, and in lessening the severity and danger of the disease.

The solution of nitrate of silver should consist of six or eight grains to the ounce of water, and should be applied once a day, not by the nurse, but by the physician, who should evert the lids and, after removing all pus, mop the silver solution upon the tarsal conjunctiva. Dropping solutions of silver into the eyes in the treatment of this disease I regard as pernicious, as it destroys and removes the protecting epithelial covering of the cornea, and so favors its infection and destruction. *Nitrate of silver is the remedy*, and I regard with much less favor the various so-called astringents, as sulphate of zinc, tannic acid, boric acid, etc., which are in mild cases useless, and in severe ones a disappointment. Leeches, blisters and cauthotomy have no place in the treatment of this disease. If corneal ulceration occurs the pupil should be kept dilated with a weak solution of atropine.

To correctly treat a case of ophthalmia neonatorum two nurses, one for day, and one

for night, are needed and should always be provided.

Intelligent and faithful nursing counts for much in this disease and it should be not only insisted upon but demanded. Nurses and other attendants should be warned of the contagious nature of the discharge and instructed in the protection of their own eyes. They should when cleansing the eyes wear protecting glasses or goggles, and immediately afterwards wash their hands. In lying-in establishments where ophthalmia neonatorum was formerly so rife it was not unusual for nurses to contract the infection from the infants. The physician may also contract the disease and should be on his guard.

Ophthalmia neonatorum causes 33 per cent of the blindness in the blind asylums of Germany and Austria. In those of Philadelphia Dr. Harlan found it to be 32 per cent; while in the Tennessee School for the Blind among 226 pupils I found ophthalmia neonatorum to be the cause in 40 cases or 17.6 per cent. This would seem to speak well for Tennessee, but the predominance of our rural over our urban population is probably the real cause.

Of such importance is this disease that several states have special laws upon it. These laws make it obligatory upon any nurse or mid-wife, to call in a legally qualified physician, whenever any infant in her care develops an inflammation of its eyes.

Is it not a reproach to the profession that this disease which is preventable in the first place, and curable in the second, should persist in being the cause of more blindness than any other condition that affects human vision?

FOOD POISONING.

By W. E. SHEPHERD, M. D., Taylorsville, Ky.

It was observed in the first part of the last century that certain articles of food, when in a condition of incipient putrification not sufficiently advanced to awaken suspicion, by the liberation of odorous products, caused violent symptoms of poisoning and death in the human subject. But it remained for Selma in 1875, to designate substances obtained from putrefying organic matter, and possessed of the general properties that characterize the vegetable alkaloids. Reported cases of poisoning by food is due to the large consumption of preserved foods. Vaughan says, "the apparent increase in the number of cases of poisoning by food is due to the fact that it is only within recent years that the medical profession has learned to recognize food infection as a frequent cause of illness, or, at least has been in possession of the knowledge necessary to convert suspicion into positive demonstration."

We also know that many cases that were formerly attributed to accidental poisoning

with some metallic gastro-intestinal irritant are also due to infected food; and that the same agency may induce diseases simulating typhoid fever, pneumonia, and other diseases.

I find in the literature at my command very little written on this subject. Before I give you a detailed account of the cases I desire to report I wish to call your attention to symptoms laid down by Musser in his *Physical Diagnosis*. He says the history of the case is often the first clue to its nature. The symptoms of poisoning for fish or shell fish, are those of acute mineral poisoning with profound nervous symptoms, and that fever does not attend this condition, but collapse follows quickly; there are no gastro-intestinal symptoms. It has been my experience that the most obstinate gastro-intestinal symptoms and the highest fever have been in those cases by poisoning from oysters, and fish. The first case I desire to call your attention to was a man, sixty years of age, who had eaten heartily of fish for dinner on Thanksgiving day 1900. I was called at 1 p. m., and found him vomiting and purging, and in a very depressed state, pulse 140, very weak, temperature 101, cyanotic, respiration 30; he complained of violent pain in limbs and abdomen, dryness of throat with intense thirst, pupils dilated. To relieve his intense pain I gave him morphine, atropine and strychnine hypodermically, followed with magnesium sulphate, and in the course of an hour patient was comparatively easy. At 6 p. m., I found him free of pain, pulse 120, temperature 100, respiration 20, had a free move from his bowels, resting comparatively well, but extremely weak. My patient continued to gradually improve, but was very weak for some days. He was unable to eat fish ever afterward.

My next case was a lad of 14 years, a hale, hearty lad, who was taken sick on the morning of the 6th of January, 1902, at 1 a. m. I was called to see him at 5 a. m., and found him vomiting, purging and suffering with cramps in calves of his legs, his pulse 160, weak and dicrotic, temperature 104, pupils widely dilated, very thirsty, skin very red. He also complained of dryness of throat. His condition led me to believe I had a case of scarlet fever, but I found he had no sore throat, nor the characteristic tongue of scarlet fever. On close inquiry I found he had made a very hearty meal of sausage and cheese for supper, I gave him a hypodermic of morphine and strychnine, and followed with a dose of sulphate of magnesium.

I found that the bologna sausage, while firm and solid on the outside, had a gray centre, and the cheese was covered with a green mold. On the afternoon at 5 o'clock I found my patient comparatively free of pain, no vomiting, but a persistent diarrhoea, having

the odor and color of a typhoid fever stool, with a pulse 120, and temperature 103. I gave him fifteen grains of acetozone in a quart of water, to take two ounces every three hours. At 7 a. m., on the 7th I found his pulse 100, temperature 100, no pain and diarrhoea very much better. He made an uneventful recovery.

Case III. On December 28th, 1902, I was called to see a lady, 58 years of age, who had been sick since the night of the 27th after eating a supper of raw oysters. I found her in a state of nervous prostration and collapse, pulse 160, temperature 105, surface cold, extremities cold, vomiting and purging, gastrointestinal pain, and cramps in arms and legs, pupils widely dilated, with extreme thirst, she had a feeling of restriction in glottis, as if she would suffocate, her pulse was very weak and dicrotic, her stools resembled typhoid stools, very copious and had a terrible odor, passed them about every hour. I gave her first a hypodermic of morphine, atropine and a large dose of strychnine, and proceeded at once to flush her bowels with a normal saline solution, using a colon tube, and had hot water bottles, and hot blankets applied until her surface became warm. After I had controlled her vomiting with the hypodermic I gave her all the brandy I could get her to take. I remained with her the rest of the day and night, and before she began to get warm, the next morning I gave her acetozone solution every three hours. She suffered with soreness in her muscles, for several weeks, though her fever left her in four or five days, her diarrhoea lasted for more than a week, but not so profuse, her kidneys acted very scantily, and urine was very red. She was months recovering.

Case IV. I was called on January 12th, 1903, in the afternoon to see a boy 15 years of age. The father, who was a blacksmith was living together with his two boys 15 and 13 years of age; they had rooms in a flat and were doing their own housework, the boys going to school during the day. Their living consisted chiefly of canned goods, cheese, bologna sausage and oysters. The father had a slight attack, calling on me at my office, and after a few doses of Epsom salts, and restricting his diet to milk and bread for a few days was able to resume his work. He and the boys both had several attacks with their bowels, but after a purge and restriction to milk and bread and butter. When I saw the boy on Monday the 12th, for the first time, I found him with pulse 140, temperature 102, respiration 32, diarrhoea with some gastric pains, vomiting, with an unsatisfied thirst, pupils widely dilated, extremities cold also cold surface, joints swollen and very sore. The entire body was adematous. I found at the base of

both lungs mucous ralls, and anemic heart murmurs. He was in a condition of extreme collapse. I gave him 1-8 grain of morphine with 1-50 grain of strychnine hypodermically, and all the brandy and milk I could get him to take, and ordered acetozone every three hours. I also gave him a small dose of magnesium sulphate, with hot water bottles and hot flannels to his surface. On the morning of the 13th I found him not improved, the mucous ralls had extended to at least half of mucous ralls had extended to at least half of and he pronounced the case one of typhoid pneumonia, after a Diazo test of the urine, he grew worse on Wednesday, his symptoms aggravated, and the evening of the fourth day died from adema of the lungs.

The other boy was taken sick on Tuesday, the 13th, with the same symptoms, except, not aggravated. I learned from his physician that he was confined to his bed for two months.

My diagnosis was made from the history of the case, from the father's case, and from my knowledge of the food they had been eating, the sausage was gray within the centre, the cheese was green with mold, and the oysters were in a state of decomposition.

The last case I will report was a bright, healthy little girl of 8 years. The child had been perfectly well since August, not an hour of illness. In August after a hearty supper she was very sick one day, but was soon relieved by giving her a good dose of calomel, following it with an enema. On the 5th of December, 1904, after eating raw oysters for supper she was taken very sick, at 7 p. m., vomiting, and complaining of gastric pains, about 8 a. m. of the 6th I was called to see her and found her still vomiting and purging, with pulse 180, very weak hardly able to count radical pulse, temperature 105, surface cold, hands and feet cold, great thirst, complained of burning sensation in stomach and throat, with dryness and a sense of constriction in throat, cramps in limbs, tongue pale, also lips, pupils dilated, had the appearance of case suffering from severe hemorrhage, frequent sighing. I gave her all the heart stimulants I could, without any effect. Kept hot water bottles to her, wrapped her in hot blankets, without warming her surface. At noon I had a consultant called, we continued the use of artificial stimulants with artificial heat but our patient died at 6 p. m. Evidently in my mind, it was paralysis of the cardiac and pulmonary branches of the pneumogastric nerve. There was at the time two cases of scarlet fever and diphtheria convalescing in the house, and the consulting physician suggested the idea that maybe our patient had a malignant attack of scarlet fever, but I saw no symptoms leading to that conclus-

ion, she had not been exposed to the other children, had no rash, no throat symptoms, in fact no symptoms of scarlet fever.

TYPHOID FEVER.*

By J. W. BARNHILL, M. D., Owensboro, Ky.

The subject of typhoid fever will never cease to be an interesting one until we better understand its prevention and cure, and while this paper may be uninteresting, its discussion will probably be of interest to you; hence, my reason for presenting this subject. Typhoid fever has no respect for persons or places: the rich and the poor, the high and the low, the infant from its birth to its allotted three score and ten, all are liable to its ravages—it enters the palace, and it condescends to visit the humblest home. Under modern treatment it is not as destructive as formerly, still its victims can be counted by the thousands every year.

In looking up the history of typhoid fever, I find no account of it previous to the commencement of the eighteenth century, on the continent. In 1804 Prost wrote on the subject, and in 1813, Petit and Sens described it under the name of entero mesenteric fever. I find this fever described under a great variety of names by various writers, such as typhus mitior, nervous fever, abdominal typhus, common continued fever, follicular enteritis, enteric fever, and so forth. Because of this great variety of names, Bartlett determined to give it the simple name of typhoid fever. The first edition of his treatise was published in 1842. He says the first authentic account of the true pathology of the disease was published by Dr. Gerhard, in the *American Journal of Medical Sciences*, in 1835. Fifty years ago, it was the opinion of many that the disease was confined to young people, and it was maintained that a person over forty-five could not have it because of the atrophied condition of Peyer's glands, the seat of the disease. This opinion, however, lapsed some time ago from the fact that many old people have suffered from the disease.

The cause, or causes, producing typhoid fever were thought by our predecessors to consist of age, locality and contagion. We recognize it as a specific infectious disease. It is never produced by mere decomposition of animal matter, feces, or the contents of sewers, but the exciting cause, the bacillus of Ebert must be present or introduced to furnish the material for a new growth. The germs may reach the body by the air, articles of clothing, and common house flies, but in a large per cent of our cases I believe they en-

ter the system by the drinking of contaminated water. They may also be transmitted by way of the placenta from mother to foetus. The infectious product is contained in the discharges from the bowels, kidneys, and in the matters vomited or expectorated. As to the exact mode of action of the bacilli after their admission to the intestine, further investigations are needed. They may find soil suitable to multiply in the intestinal contents, but very probably also they immediately penetrate the mucous membrane and lodge in the lymphatic tissue of the bowels, as well as in the mesenteric and other lymphatic glands and in the spleen and liver. Here they grow at the expense of the tissue and produce necrosis. The typhoid bacilli possesses tenacious vitality. They have been known to remain active and virulent in parts of the organism as long as fifteen months after the convalescence of the patient. Outside of the body, it seems undoubted that they retain their vitality for weeks in water, and may increase in numbers; in badly drained soil they are capable of multiplication and growth, and thus continue to live indefinitely.

On the study of the section of colloidal solutions of copper on typhoid bacilli, Stewart, of the bacteriological laboratory of the Bureau of Health of Philadelphia, says that sterile drinking water in clean copper vessels inoculated with typhoid bacilli invariably showed that the bacilli had all perished in one hour. Raw tap water, containing large numbers of river organisms and considerable vegetable matter, when inoculated with millions of typhoid bacilli, were killed off in from one and three-fourths to two and one-half hours. The quantity of colloidal copper given off from a one liter copper vessel in three hours, was one part of four million, and chemical experience has shown that this amount of colloidal copper is harmless when taken into the human system. In epidemics of typhoid fever he concludes that water could be purified of typhoid organisms by allowing it to stand in a copper vessel for three hours. If this is true, we are certainly on the eve of a revolution in regard to the prevention and cure of typhoid fever. The onset of typhoid usually is gradual, but occasionally sudden. As to diagnosis, in the majority of cases this is not difficult with the general clinical aspect, tired and weak feeling, headache, backache, pains in legs, often chilliness, dry cough, rose-colored spots scattered over abdomen, tenderness over bowels, a gradual rising and falling of the temperature, a loss of interest in everything pertaining to their well being, the failure of the fever to yield to quinine. I deem the Widal serum test of little importance from the fact that it takes five days, or more, of the fever before you get to take this

* Read before the Davies County Medical Society June 20, 1905

test, and then you get a positive diagnosis in only fifty per cent, with probably 25 per cent. of the remaining half doubtful. We are able to make our diagnosis from other symptoms that are present within this time.

As to prevention, I believe we are all careless and do not do our full duty by having the bacilli destroyed as soon as they leave the patient, by sterilizing the excretions and having the water sterilized before it is consumed by the parties in attendance.

As to treatment, we have no specific. We should treat the patient and not the disease, for what will agree with one may disagree with another. Put your patient to bed and keep him there during the fever and one week after. Select a room that can be kept quiet and well ventilated. Control the fever within reasonable bounds, maintain the strength by judicious feeding, give intestinal antiseptics, control complications by agents indicated. I give calomel at first to rouse the secretions and clear the deck for action, follow with quinine to eliminate malaria, if there is any present, and help to make diagnosis.

To control the fever, I think the best remedy is water internally, externally and eternally. The tub bath has been in vogue for some years and is advised by the most prominent of physicians, but personally I do not believe in it. I believe it is bad policy to lift patients in and out of bed because it seems to me that an enfeebled patient in a tub can not get the reaction that a healthy man can in a large swimming tank of the same temperature as the bath. I believe the sponge bath is much safer and better. As to feeding injudiciously, I believe that by this we send more victims to that country from whence no traveler ever returns, than from all other sources combined. All food should be liquid from the day typhoid fever is suspected until convalescence is well established. With milk, buttermilk, soups, meat broths and teas, we have a varied list that can be given through a long series of weary days. If the food is not digested thoroughly, we have pains, tympany, diarrhoea and rise of fever. When this occurs, change the diet, or better, leave off all nourishment for 24 or 48 hours.

As to drugs, we have many that have been recommended to select from, my preference being acid hydrochloric, dil, aromatic, sulph. acids, turpentine, creosote, acetozone, zinc sulpho, carbolate and calomel, these to be given as indicated. I want the bowels to act at least once in every 48 hours in all cases, hemorrhage excepted. I use castor oil in doses sufficient to act when needed. The lips, teeth and tongue should be washed two or three times a day with soda water, vinegar or listerine. Tympanites, one of the serious complications, is better treated by pre-

vention than by cure. It is another reason for attention to food. Turpentine stupes applied at least one hour in the twenty four will often prevent it. After it occurs, use turpentine internally and externally, colon tube, asafetida by enema. For intestinal hemorrhage, absolute quiet, ice to abdomen, opium and adrenalin solution; for heart failure, strychnia and whiskey; for perforation, the surgeon's services should be had, and last, but not least, the nurse or attendants should follow the instructions given by the physician.

PROGRESS IN GENERAL MEDICINE.

Under charge of J. A. FLEXNER, M. D.,
Louisville, Ky.

A PRELIMINARY REPORT ON THE PASTEURISED AND CLEAN MILK OF PHILADELPHIA.

By M. E. PENNINGTON, Ph. D., and J. A. McCLEINTOCK, V. M. D.

The authors state that it has been recently demonstrated "that milk drawn from selected animals, under strictly aseptic conditions, is sterile." But with even careful handling all ordinary milk contains some germs. It would seem but natural that in such good cultural medium these organisms would rapidly multiply. That this is not the case, however, would appear from the studies of Fakkar, Hesse, Kitasato, Friedreich and others. The only organism apparently resistant to the natural immunizing substances contained in raw milk appeared to be the tubercle bacillus. The cholera and the typhoid germs, in addition to many others, begin disappearing at once when added to milk. That milk loses decidedly in the process of pasteurization seems apparent from the studies included in this paper. The authors state "that a number of samples of commercially pasteurized milk obtained in the open market and tested by this laboratory showed, almost invariably, a fairly large number of organisms at the start and a pronounced increase after keeping at 11 degrees to 15 degrees C. for twenty-four hours." "Clean milk," on the contrary, had usually a very low count which rose but little and occasionally decreased. The significant question is put by the authors, that "when a milk shows a count of more than 1,000,000 organisms per C. C., the question arises, is it desirable to permit in a food the toxins and products of organisms, even though they themselves be reduced to a few hundred thousand at the expense, frequently, of the milk enzymes and probably of other substances closely connected with its food

value and keeping qualities?" To which question in the opinion of the reviewer, only a negative answer can be correctly given. The summary of the studies is as follows:

"During May and June, 1904, counts of clean (certified) milk and of commercial pasteurized milk showed that the latter was richer in organisms on the initial examination and that a rapid increase in the organisms present took place on keeping them at refrigerator temperatures.

Pasteurized modified milk for infant feeding showed frequently an appalling initial count, and almost invariably a very high count at the end of twenty-four hours.

The commercial pasteurizing plants succeed in reducing the original bacterial content of the milk to a very low figure in the heating coils, but again contaminate it in the cooling and bottling of the milk, so that at times the final count is higher than that of the original unpasteurized milk.

* * *

THE POSSIBILITY OF AVOIDING CONFUSION BY THE SMEGMA BACILLUS IN THE DIAGNOSIS OF URINARY AND GENITAL TUBERCULOSIS.—AN EXPERIMENTAL STUDY.

By HUGH H. YOUNG, M. D., and J. W. CHURCHMAN, M. D., of Baltimore.

It has been known for a long time that the smegma or secretion bacillus belonged to the group of "acid-fast" bacilli, the staining reactions being very similar to the tubercle organism. Many methods of differentiating this from the tubercle germ have been published only to be contradicted by other observers than the particular one who had a method to report. The authors state, "*Precision, in a word, cannot be compounded of uncertainty, and a review of the findings force us to the conclusion that the differentiation by the stain reaction alone is always uncertain.*" The objection to the culture method is not only its general impracticability, but the time required is so long that it is useless for clinical purposes. The investigations of Young and Churchman showed the smegma bacilli are surface organisms and that it is easily possible by a process of retrograde irrigation to completely wash them from the surface of the urethra. Careful sterilization of the external parts is of course essential before the irrigation is commenced. When these measures are correctly carried out, the ordinary staining methods for tubercle bacilli may be carried out and if they are found, there can be no question as to the diagnosis. It then remains to determine the part of the genito-urinary tract from which they are drawn.

A STAINING METHOD FOR THE SPIROCHAETA PALLIDA SCHARIDIN.

By DR. KARL REITMANN, of Vienna, Austria.

(From the *Deutsche Med. Wochenschrift*, No. 25, June 22.)

The extreme difficulty of staining this micro-organism has been dwelt on by its discoverer in his original and subsequent publications and is elsewhere referred to in this issue. Reitmann claims by his method to render the organism easily visible and readily detectable by even moderately experienced examiners. The method is as follows: A thoroughly clean cover glass is spread very thinly with the material for examination, air-dried, and is fixed for ten minutes in absolute alcohol; it is then taken through distilled water and placed for five minutes in a 2 per cent. solution of phosphotungstic acid. This mordant is then washed off thoroughly with distilled water and 70 per cent. alcohol and again in distilled water, and then after the clean side of the cover slip is dry, it is warmed with the carbol-fuchsin stain, being careful to avoid ebullition of the stain. It is then carefully washed in running water and then rinsed in 70 per cent. alcohol until all excess of color is removed, again washed in water, then dried and mounted in balsam. The cell nuclei appear dark, protoplasm light, serum very light, the spirochaeta a fairly intense but precise red.

* * *

IMPRESSIONS FROM THE WASHINGTON TUBERCULOSIS MEETING.

Dr. Theodore Potter, Secretary of the State Tuberculosis Commission, writes, in the *Indiana Medical Journal* for June, 1905, that the strongest impressions left with him by the first meeting of the National Association for the Study and Prevention of Tuberculosis were:

1. The fact that after several attempts an organization has been formed which commands the full confidence of the profession and of the laymen who are especially interested.
2. The remarkably earnest and intelligent attitude of many of these laymen and women not only in the sociological, but also medical aspects, of tuberculosis. Plainly, tuberculosis has become not only a medical but a great world problem.
3. The degree to which the opinion is becoming crystallized both among the physicians and the laymen, who are especially studying the problem, that tuberculosis is in a large measure a preventable disease of which society may largely rid itself if it will avail itself of the knowledge and experience now accumulated.
4. Sufficient time has elapsed for a satisfac-

tory demonstration in this country that a large proportion of the cases detected and put under proper treatment reasonably early may be arrested and the patient restored to useful activity.

5. That we must be cautious about the use of the word cure as applied to tuberculosis, particularly in connection with the sanatorium movement, lest we mislead ourselves and the public. The arrest of the disease may under favorable conditions be secured in very many cases in from four to twelve months; anything like a real cure is a matter of years under a continuance of such favorable conditions. The real cure of tuberculosis involves a long and sustained battle against both the seed and the soil and we must not in our new enthusiasm allow ourselves or our patients to entertain any other view of it.

6. The old question of the virtues of special climates. Over this question an interesting and somewhat warm discussion arose. The demonstration of the beneficial results obtainable under the systematic sanatorium treatment in any climate, as for instance at the Saranac Institution and the Massachusetts State Sanatorium at Rutland, make it plain that the chief elements of cure are fresh air, proper feeding and a regulated life. Yet the believers in special virtues of special climates stoutly maintain the view that other things being equal, the best hope for both speedy and lasting arrest of the disease is given by the addition of certain climatic influences to these other and more influential measures.

THE PERSONAL EQUATION OF OUR TUBERCULOUS PATIENTS.

By W. F. BOGGESE, M. D., Louisville, Ky.

In determining a theme for a paper, I was impressed with the idea that a discussion of the personal qualities of our patients might elicit some thoughts of interest, as well as be of benefit to the hapless victim of this dreadful and dreadful malady. Recognizing the overwhelming importance of an early recognition of this disease, we will first consider the pre-tent manifestations of its incipency as presented in our clinical work.

I. There are a certain number of patients in whom the disease has made considerable progress before the symptoms are sufficient to arouse the attention of the patient or oftentimes cause a suspicion of lung trouble in the mind of the physician when consulted. These patients pursue their usual avocations with the sense of not being in prime condition. They find they are a little more fatigued at the close of their day's work, and a little more effort is required to perform their accustomed duties. They begin to lose a little flesh, have not quite as hearty an appetite as former-

ly, suffer from muscular weakness and nerve tire; no cough, no expectoration, no fever, no haemoptysis. They consult a physician for a tonic. He, as a rule, allows his patient to make his own diagnosis. After a while he examines the lungs and is surprised to find positive evidence of advanced tuberculosis, even apical excavation. This is the so-called latent form of the disease and is most frequently seen in working men.

2. Another mode of onset that is not infrequently presented to us is that with symptoms of dyspepsia and anemia. How common it is for a woman or a young girl to come to our office for treatment of stomach trouble, loss of appetite, gastric irritability, acid dyspepsia with the eructations, complaining of increasing weakness, palpitation of the heart, amenorrhoea, appearance both anaemic and chloraemic. Upon close questioning she will admit that she has a slight cough, but insists that it is only a stomach cough. After careful physical examination, we are surprised to find marked evidences of tubercle.

3. Another type: In our Southern clime, this picture is often seen—a patient has repeated paroxysms of chills, fevers, sweats, which may, and often do, recur with great regularity, suggesting malarial fever. Not enough symptoms of tuberculous troubles are present to attract attention, except at the hands of a careful diagnostician. I have seen patient after patient in Kentucky and Southern Indiana treated month after month with quinine and other anti-malarials, confounding the initial rigor of pulmonary tuberculosis with the chills and fevers of malaria.

4. The fourth type is that in which the onset with pleurisy. There is no question of the close relationship between acute pleurisy and pulmonary tuberculosis. One third of all cases of acute pleurisy are, or will prove to be tuberculous in character. A dry pleurisy, especially over the apex, or an acute pleurisy with an effusion in which the exudate gradually disappears, or the cough persists, dyspnoea, loss of weight for several months, and lastly chills and fever and haemoptysis make up the clinical picture of the malady beginning with pleurisy. This picture has not been an infrequent one in my own experience.

5. The fifth type, too, is not an uncommon one: in this the prime localization, or at least prime manifestations of the disease, is in the larynx. A patient with an intractable laryngitis, with huskiness of voice, is referred to a throat specialist. Upon examination he finds either positive evidence of, or at least grounds for a suspicion of a tuberculous laryngitis, and he refers the patient back to his family physician for careful examination. Much to this doctor's surprise, he finds evidence of

even advanced tuberculous disease in the lungs.

6. Another type, in which the onset is with haemoptysis. A famous Hypocratic axiom says, "From the spitting of blood, there is a spitting of pus." There are three classes of hemorrhage occurring in young and apparently healthy persons.

a. Bleeding coming on without premonition, without over-exertion or injury. No history or direct pulmonary exposure.

b. Apparently healthy individuals are suddenly attacked after a slight exertion or during some athletic exercise.

c. In this class the individual has been in gradually failing health for a month or two, but no special symptoms referable to the lungs.

In these classes, it is a very common thing for a physician to persuade himself that the hemorrhage is only vicarious menstruation, or tonsillar, or laryngeal hemorrhage; but recent systematic studies of haemoptysis have demonstrated that most of these cases are at the time positively tuberculous, and that in the course of a few months the symptoms will be well established.

7. With the onset of tuberculosis of the cervico-axillary glands, the latency of pulmonary lesions is now a well established fact. For months, or even years, preceding pulmonary tuberculosis, we may have tuberculous disease of the glands. There is no question, however, but that the tuberculosis of the cervical glands in early life remains for the most part purely local. I have seen acute military tuberculosis follow rapidly upon surgical removal of cervical glands. I have seen cervical glands preceding pulmonary tuberculosis for a few weeks or even months. In two cases, I have seen pulmonary lesions rapidly develop after a few weeks treatment of cervical enlargement by the X-rays.

8. We have now come to the most frequent type of onset, that with bronchitis. How often do we hear the phrase used, "a neglected cold" and bronchitis not responding to domestic remedies, nor healing under judicial and scientific treatment at the hands of a physician; there is loss of weight, strength, and appetite, gradual decline in health, positive signs of incipient trouble at the apices soon appearing. This is the mode of onset of the great majority of our tuberculous patients. The personal aspect is prominent here. It is in teaching that a so-called "neglected cold" or "obstinate cough" lasting for more than several weeks, particularly in young adults, should demand not only professional attention, but most careful examination. The profession is here culpable in that it is so prone to pass over the symptoms sub-

jectively, without a careful and painstaking examination of the lungs.

PROGNOSIS.—The personal equation is also prominent in the matter of prognosis. It has been demonstrated that there is undoubtedly a tendency in many tuberculous cases to self-limitation and spontaneous cure. It is also a well-known clinical fact that nature, assisted by the physician and the patient, can, by increasing the nutritive power, aiding and abetting that personal vis medicatrix naturae, change the naturally degenerative tendency from one of caseation (coagulation necrosis) to that of sclerosis or fibroid degeneration. We further recognize the fact that from 25 per cent. to 33 1-3 per cent. of our tuberculous patients are curable. There are certain individual factors upon which we base our prognosis in each case.

1. Previous good health and a sound family history. This is a factor not to be overlooked. In all disease conditions, we have come to recognize the wide variations in the natural restrictive and recuperative power of individuals and families; a strong and hearty and disease-resisting family history makes a more favorable prognosis in any disease.

2. A good stomach and strong digestion are the most favoring factors. Our main hope of checking the inroads of tuberculosis is through the nutritive processes. Tubercle bacilli will not grow and thrive upon and in healthy tissue. The higher and more perfect the nutritive processes are, the less favorable the soil. Our modern and scientific treatment is based largely upon our ability to supply albuminous and nitrogenous foods to the tissues that owing to the toxins, have had these elements used up; constantly our prognosis is dependent largely upon the individual digestion.

3. The rapidity and method of onset is also important in prognosis. The special symptoms in each case give individual coloring to our prognosis.

4. The possession of favorable environment is also a personal question to be seriously considered. Can we get control of our tuberculous patients to the extent of making environment, correcting habits, ordering modes of living? These are potent questions for us to determine.

PROPHYLAXIS.—Another and most important question from the personal standpoint of our patients is prophylaxis. A vital error in the daily work of most physicians and an error that should be pondered well, is this: In their fear of unnecessarily alarming the tuberculous patients, they fail to acquaint them early with the true nature of their malady and warn them of the great danger they are constantly disseminating among their fellow-beings, as well as to impress upon them

in no uncertain way, the duty they owe their fellow-men. I have, for some years, held the view that to obtain the perfect co-operation of these patients for their own good as well as the good of others, we should, as soon as the diagnosis is made, acquaint them with the condition; no harm can be done, great good will be achieved. I take it that a fundamental practice should be to impress upon the laity, the rich and the poor, the educated and the ignorant, the young and the old, the infectious nature as well as the preventibility of pulmonary tuberculosis. To succeed in this, the physician must make it a personal matter with his patient and those associated with him. The experiments of Fluegge, demonstrating the possibility of disseminating tuberculosis germs by invisible droplets of sputum, show that our personal prophylaxis does not often go far enough. The very recent demonstration of Dr. Alice Hamilton and Mendes de Leon in the matter of streptococcic infection, may but impress us with the necessity of carrying our personal profession to a much more perfect application. The personal application of prophylaxis is not alone concerned with the destruction of the germ, but goes far beyond this and deals with the very fundamental principles of life, the better care and rearing of infants, more attention to the developmental periods of childhood, more thoughts to the necessities of convalescents from acute infections, greater attention to modes and methods of life, and a closer approach to the simple, natural and normal life. These are all vital questions, relating directly to the personal integrity of health and life.

KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION.

Reference has been made in previous issues of this Journal to the movement which has taken shape in Louisville, looking to the formation of an organization to combat tuberculosis in the city and State. This organization now numbers about 200 members, and we publish below the Constitution and By-laws which have been adopted as the framework from which to proceed. It is published here in the hope that it may serve as a guide in the formation of local associations of similar purpose throughout the State.

J. A. FLEXNER, M. D.

CONSTITUTION OF THE ANTI-TUBERCULOSIS ASSOCIATION.

Know All men By These Presents, That we, the undersigned, have associated ourselves together for the purpose of forming a corporation under and by virtue of the laws of the State of Kentucky, and have adopted

the following articles of incorporation, to-wit:

I.

The name of this corporation shall be "The Kentucky Anti-Tuberculosis Association."

II.

Its principal office and place of business is to be located in the City of Louisville.

III.

The object and purposes of this corporation shall be to organize and carry on a campaign of education in Kentucky with reference of tuberculous diseases, for the purpose of informing the people of the State as to the nature of tuberculosis, its dangers, its highly contagious character, and its curability. The Association also intends to erect and maintain hospitals for the accommodation of patients afflicted with tuberculosis and to provide treatment for them under modern sanitary conditions, and further, to provide treatment at home for such patients as cannot be accommodated in hospitals.

IV.

This Association shall have no capital stock and shall not be operated for profit.

V.

The names and places of residence of each of its original incorporators are as follows:

VI.

This corporation shall begin business at the time when its articles of incorporation are filed and shall continue perpetually.

VII.

The affairs of this corporation shall be conducted by a President, one or more Vice Presidents, a Treasurer and a Secretary, and these officers shall be elected at the first meeting of the incorporators held after the articles are filed.

VIII.

The highest amount of indebtedness or liability which this corporation may at any time incur is \$5,000.00.

IX.

The private property of the stockholders of this corporation shall not be subject to the payment of corporate debts.

BY-LAWS OF THE ANTI-TUBERCULOSIS ASSOCIATION.

MEMBERSHIP.

The membership of this association is to be unlimited. Any person may be admitted to membership upon written application to the treasurer enclosing check for \$5.00 for one year's dues. The Executive Committee may establish classes of members dependent upon the amount of donations made by such members for the purposes of the association.

OFFICERS.

The general officers of this society shall be a President, at least two Vice Presidents, a Secretary and a Treasurer, who shall be elected at each annual meeting, and serve for one year, or until their successors are elected; any vacancy to be filled by appointment of the Executive Committee. Practitioners of medicine shall not be eligible to the position of President, or First Vice President, and the President shall be ex officio a member of every committee. The office of First Vice President shall not be held by a medical practitioner. The office of Second Vice President shall be held by a medical practitioner, who shall be ex officio chairman of the Medical Committee.

MANAGEMENT.

The work of this association shall be conducted under the immediate supervision and control of the Executive Committee, composed of the general officers of the society and the respective chairmen of all regular committees established by the society. The Executive Committee shall have power to create special committees, to veto the action of any regular or special committee, to fill vacancies in offices or on committees, and to remove from office any chairman or member of a committee. The President and Secretary of the society shall be respectively the Chairman and Secretary of the Executive Committee.

WAYS AND MEANS COMMITTEE.

This committee shall be a regular committee and composed of one member appointed by the President of the society, who shall be chairman, and of such other members as the chairman may select, subject to the approval of the Executive Committee.

PUBLICITY COMMITTEE.

This committee shall be a regular committee and composed of one member appointed by the President of the society, who shall be chairman, and of such other members as the chairman may select, subject to the approval of the Executive Committee.

COMMITTEE ON LEGISLATION.

This committee shall be a regular committee and composed of one member appointed by the President of the society, who shall be chairman, and of such other members as the chairman may select, subject to the approval of the Executive Committee.

COMMITTEE ON INSPECTION AND CONFERENCE.

This committee shall be a regular committee and composed of one member appointed by the President of the society who shall be chairman, and of such other members as the

chairman may select, subject to the approval of the Executive Committee.

MEDICAL COMMITTEE.

This committee shall be a regular committee and shall be composed of the Second Vice President of the society, who shall be chairman of the committee, and shall consist of one member selected from the City Health Department, two members selected from the medical profession at large, and one member selected from the faculty of the following medical colleges in this State, viz:

1. Hospital College of Medicine. 2. Kentucky School of Medicine. 3. Kentucky University. 4. Louisville Medical College. 5. Southwestern Homeopathic College. 6. University of Louisville.

The appointment of this committee shall be made by the President, by and with the advice of the chairman of this committee and subject to the approval of the Executive Committee. An advisory board may be formed by the Executive Committee to be composed of prominent citizens distinguished in charitable works, especially those connected with our local charities, who shall be invited to assist this society by giving it the benefit of their practical knowledge and experience.

MEETINGS..

The regular meeting of this society shall be held annually on the second Tuesday of October. Special meetings may be held upon the call of the President, and shall be called by him upon the request in writing of three members of the Executive Committee.

QUORUM.

Ten members shall constitute a quorum at any meeting of the society. Five members shall constitute a quorum of the Executive Committee.

PROCEDURE.

The meeting shall be conducted in the following order: (1) Call to order, (2) Minutes of the previous meeting, (3) Communications, (4) Reports, (5) Unfinished business, (6) New business, (7) Election of officers, (8) Adjournment.

The officers of this society shall perform the same functions and have the same powers usual and customary for such officers.

DUTIES OF COMMITTEES.

Ways and Means.—This committee shall be entrusted with the solicitation and collection of funds to be devoted to the work carried on by this association.

Publicity Committee.—The duties of this committee shall embrace the compilation, publication and dissemination, by means of lectures, literature, or other suitable means, in-

formation relative both to the work undertaken by this association and the specific knowledge requisite to the abatement, cure and prevention of tuberculosis.

Legislation Committee.—It shall be the duty of this committee to secure the adoption of new laws having reference to the control and prevention of tuberculosis, to secure the repeal of unwise laws which may now be on the statute books, and to further the enforcement of existing laws which directly or indirectly have any bearing upon the public health.

Inspection and Conference Committee.—The duties of this committee shall relate to the inspection and mitigation of unsanitary conditions wherever people live and work, and by conference with the public authorities to secure their aid and co-operation in abating such conditions with a view to limiting the extension of tuberculosis. It shall act with the inspectors and the medical department of the city, county and state, and of the larger public charities in the care of individual cases of tuberculosis and in guarding against further infection.

Medical Committee.—The duties of this committee shall cover the duties of a medical nature, and the enlistment of the profession in the movement against tuberculosis.

AMENDMENTS.

Amendments to these by-laws may be adopted at any annual meeting by a vote of two-thirds of the members present, and may be amended at any special meeting of the association by a majority of two-thirds of those present, or at any regular meeting of the Executive Committee by a vote of two-thirds of the members of the Committee.

KENTUCKY NOTES.

THE LOUISVILLE JEWISH HOSPITAL.

Louisville has added another attractive institution to her already goodly number of infirmaries and hospitals. On May 11th the Jewish Hospital was opened for the inspection of the profession. It is delightfully situated on the corner of Floyd and Kentucky streets, upon a spacious lot allowing perfect ventilation to each room and ward. It is a fire-proof building, equipped with elevator, fumigating plant, and an operating room which for light and convenience is unsurpassed.

The rooms are furnished in white enamel and glass; no wood or material for collecting dust are present anywhere. The floors and walls are of such contour that they can be easily flushed, and on the whole it is all that

money and experience could make an up-to-date hospital.

It is strictly a non-sectarian institution, where all creeds and religions are alike welcome, and the tender care of the several trained nurses will relieve many a sufferer. The wards are free for those who are unable to pay, but beds may also be had in private rooms by any physician applying.

THE PROGRAM FOR THE 1905 MEETING OF THE KENTUCKY MEDICAL ASSOCIATION.

The program committee again calls attention to the symposia enumerated below, which have been determined upon for the annual meeting. The committee invites communications from members who feel themselves specially qualified to write on these subjects, or who desire to present papers on other subjects of their own choosing and in which they are specially interested. To prevent the possibility of overlapping of subjects, the committee reserves the privilege of refusing papers on subjects already provided for in the program.

J. GARLAND SHERRILL,
P. F. BARBOUR,
JAMES B. BULLITT,

Committee.

1.—Obstetrical.

- a. Dystochia.
Causes and methods of Relief.
- b. Postpartum Infections.
Etiology and Pathology.
- c. Prevention and Treatment.

2.—Ulcer of the Stomach.

- a. Etiology and Pathology.
- b. Diagnosis and Medical Treatment.
- c. Surgical Aspects.

3.—Rheumatism.

- a. Acute Articular Rheumatism.
- b. The Complications of Rheumatism.
- c. Chronic Rheumatism and the Rheumatoid Diseases and their Treatment.
- d. Painful Conditions to be Differentiated from Rheumatism.

ANOTHER STATE MEDICAL JOURNAL.

This new Journal is not yet but soon will be. The Ohio State Medical Association, in meeting at Columbus, Ohio, May 9-12, passed a resolution to publish transactions in future in the form of a monthly journal. The appearance of the Ohio Medical Journal will be looked forward to with much interest by this Journal and will be heartily welcomed into the field of state medical journalism.

KENTUCKY MEDICAL JOURNAL.

BEING THE

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COUNCIL

Subscription Price One Dollar per Year

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SECRETARY-EDITOR
DR. JAMES B. BULLITT
ASSOCIATE EDITORS
DR. J. A. FLEXNER
DR. IRVIN ABELL
DR. ADOLPH O. PFINGST

RESULTS OF ALL STATE BOARD EXAMINATIONS FROM 1900 TO 1903 INCLUSIVE.

The publication of the results of the examination of the graduates of the Kentucky Medical Colleges for the year 1904, as published in the last issue of the Kentucky State Journal, does an injustice to some schools, and especially to the Hospital College of Medicine. The following statistics are taken from the bulletin of the Academy of Medicine which publishes the results by States and Colleges for the years 1900, 1901, 1902 and 1903. It will be seen that the average of failures of the graduates of the Hospital College of Medicine is much lower than one would judge from the published statistics copied from the Association Journal of May 6th.

The compulsory examination of graduates wishing to practice medicine in the various states of the Union is of great interest to the schools as well as to the graduate himself. The percentage of failures of applicants before the Boards in the United States from 1896 to 1903, inclusive, was 17.1; for the next five years, beginning 1904, the percentage will more than likely be much greater.

The graded system of the four years' course and the uniform curriculum adopted by the Association of American Colleges, and the Confederation of Examining Boards make a greater number of failures inevitable.

The number of subjects required by the new curriculum is 37. Four of these subjects are finished the first course, or three years before the graduate is examined by the State Board; ten of these subjects are finished the second year, or two years before he is examined by the State Board. A student who has had no lectures on fourteen of the thirty-seven branches to be passed for two years before the State Board examination is taken, and who has had twenty-three other branches crowded into his cranium for the two years previous to taking the Board examination will certainly have forgotten a

great deal of what he knew on the fourteen subjects previously finished, and what he is expected to know on these subjects by a State Board; and too, these subjects are hardest for the student to master. They are among the the fundamental branches of medicine such as chemistry, physiology, anatomy, histology, ostiology, materia medica, pharmacy, embryology, etc. Another great factor in the cause of failure before State Boards is the enormous increase in the proportion of clinical lectures as compared to diadactic lectures.

State Board examinations are theoretical, and the more diadactic lectures a student hears the better prepared he will be to pass his final or State Board examination. The advantage and benefit to the graduate from the new curriculum and the advance in preliminary education required for matriculation for the first year in a medical college will increase the knowledge and usefulness of the graduate but will not lessen the number of failures before the State Board examiners, many of whom probably have not looked into a laboratory or heard even a lecture on the newer subjects in twenty or more years, but will be found with his questions just as far advanced and up to date as the required curriculum.

National medical politics, State Board medical politics and medical school politics confronting the prospective medical student of to-day, will certainly keep many educated and naturally well endowed young men out of the profession. However, the difficulty has been overcome in many states by an "American Confederation of Reciprocating Examining and Licensing Medical Boards," and it is to this body that the new and the old graduate must look for his salvation.

The vast differences between general educational standards of the various sections of the United States should necessarily make the same difference in the standard of medical education in these various sections, and it will be a happy solution of the State Board bug-bear when a certificate from a State which is a member of the American Confederation of Reciprocating, Examining and Licensing Medical Boards will give a physician the right of way into any state in the Union.

P. RICHARD TAYLOR, M. D.

Dean Hospital College of Medicine.

SCHOOLS	H.C.M.		K.S.M.		K.U.		L.M.C.		U.V.L.	
	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.
Exam. 1900-10	3	5	2	1	1	4	0	11	3	
" 1901-13	3	13	6	0	0	5	2	7	3	
" 1902-18	0	14	11	4	0	17	4	17	7	
" 1903-20	4	26	21	6	1	36	11	16	9	
	61	10	58	40	11	62	17	51	22	

Copied from the bulletin of the Academy of Medicine of Easton, Penn., issue 1901,

1902, 1903, 1904. Report of examinations 1900, 1901, 1902, 1903.

The appended inquiry concerns a matter of much interest, and it is to be hoped that members of the profession will respond to Prof. Jastrow's wishes.—[Editor.]

AN INQUIRY IN REGARD TO MENTAL PHENOMENA CONNECTED WITH ANAESTHESIA.

While in the deeper stages of anaesthesia mental processes are usually so entirely submerged as to fall beyond the possibility of record, in the lighter stages and in the period of approach to, and most favorably of all, in the period of recovery from more complete anaesthesia, the power of response to outward stimuli is sufficient to afford ample opportunity for a series of observations which furnish the motive to the present inquiry. The co-operation of surgeons and anaesthetisers is invited to secure data that bear upon any of the questions summarized below, or upon the general problem thus suggested. Special attention is directed to the importance of tracing relations between the phenomena recorded during anaesthesia and the normal, waking, mental traits of the subject. Indeed the former can in many cases be interpreted only in the light of the latter; and observations become of value in proportion as the subject is able to account for the mental experiences of the unusual state by references to the normal source and trend of his mental processes. To determine these, skillful questions controlled, where possible, by ingenious tests, will be the most effective instrument of inquiry.

(1) *Analogies between the lighter states of anaesthesia and hypnosis.* Of these the chief trait is *increased suggestibility*: will the patient carry out automatically with enfeebled consciousness suggestions given by the operator to do thus and so, to feel or neglect certain sensations, to follow a train of thought, to carry out a code of signals between subject and operator? Is obedience to such suggestions apparent by facial expressions, involuntary cries, nods, etc., after more controlled forms of reaction have disappeared? Is there evidence that patients respond to similar suggestions not directly addressed to them? Do they react to the conversation of the attendants, to a vague knowledge of their surroundings, to interpretations, correct or incorrect, of what is actually going on? Are there any of these responses that reflect the normal habits, idiosyncrasies, etc., of the waking condition? Do they belong to the experiences immediately preceeding or to a more remote past?

Next in importance are the *automatic act-*

ivities. Illustrations are desired of automatic talking, mechanical acts, and simple tricks of manner, of the type so common in sleeping persons who walk and talk in their sleep, answer questions without awakening, make movements as of knitting, counting money, etc., or other betrayal of their subconscious thought. In very favorable instances, it may be possible to place a pencil in the patient's hand and secure by questioning a subconscious answer or scribble or drawing that throws interesting light upon what is going on in the mind, even when there is but partial consciousness of surroundings or direction of mental processes. Such observations have especial value and should be accompanied by the actual records.

(2) *Analogies between the lighter states of anaesthesia and dream life.* If the patient be questioned as to what occupied his mind up to the moment of losing consciousness and again during the regaining of full consciousness, there will inevitably result a valuable collection of data regarding the waning and waxing states of consciousness. Many of these phenomena will be dream-like, and should like dreams be recorded with ample detail to make them intelligible. The nature of the impressions, whether visual or auditory, acted or felt, and most of all the connections between the dreams and the recent or remote experiences of waking are important items. Just as ordinary dreams become interesting when they are connected with normal experiences, so in dreams of anaesthesia the patient alone can give adequate personal detail to give significance to the narrative.

(3) *Other points of interest.* The specific points enumerated are intended to make the matter definite rather than to limit the scope of the inquiry. Evidence is desired that bears in any degree of pertinence upon the general problem thus suggested. As additional points of interest may be mentioned the following: In cases of repeated anaesthesia after rather brief intervals, is it possible to elicit evidence that in the approaching or receding consciousness, details are remembered (or recallable by suggestion) which though beyond the control of the waking consciousness, are thus shown to connect one state of abnormal consciousness, are thus shown to connect one state of abnormal consciousness with another similarly caused. The analogous fact is that in hypnosis the subject will tell in a second hypnotization what happened while he was formerly hypnotized, but cannot recall in the waking interval; or again, in changes of personality the relapse into the altered personality will bring with it the control of memories of the last states of abnormal personality, which were not recallable in the normal state. Dreams and the actions of drugs show simi-

lar phenomena. Where records of this kind are available through anaesthesia, they should be recorded in detail, and a conclusive set of questionings and tests be made to elicit how far the two states are connected.

A further point of interest is the correlation of different types of mental states with different degrees of anaesthesia. For this purpose it is desirable that some physiological sign of the degree of anaesthesia be recorded as evidence in general of the depth of anaesthesia during which mental phenomena were observed. The variations of susceptibility to an anaesthetic are such as to make it important to estimate the susceptibility in each case, as well as to give such general data as the age, sex, occupation, condition of life, physical state, temperament, purpose for which the anaesthetic was administered, length of period under its influence, degree of nervous shock accompanying the same, and so on.

The general use to which the data will be placed will be that of formulating a consistent account and interpretation of the range of subconscious mental states, including simple states of distraction, absentmindedness, reverie, trance, hypnosis, dreams, the actions of drugs, alterations of personality, lapses of memory, states of confusion, and the reactions to anaesthetics. It is hoped that a sufficient series of data will be elicited by the present inquiry to throw important light upon processes as yet imperfectly understood, and the analogies of which to such artificially induced states as those accompanying anaesthesia are of especial importance. The psychologist has naturally but little opportunity to observe these phenomena and must thus appeal to those who are professionally engaged in their production, to step aside from their main interests to supply in a spirit of co-operation the data so valuable to students of a different and yet not unrelated science.

Full credit will be given to all contributions, and no direct or personal use will be made thereof in print without distinct permission. Those to whom this circular letter is addressed are hereby invited to send records of such observations and to further the purposes of this inquiry in such ways as may lie in their power. The undersigned will appreciate, both personally and professionally, favorable action upon this request.

JOSEPH JASTROW,
Madison, Wis.

The University of Wisconsin: Department of Psychology.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such

as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The *Daviess County Medical Society* met at Sorghotown on Tuesday, June 20th, in regular quarterly session. The President, Dr. J. D. Russell, of Yelvington, presided. Thirty-five physicians were present, including two distinguished visitors, Dr. C. Z. Aud, of Celiacian, and Dr. R. B. Gilbert, of Louisville.

Dr. J. S. Harris reported a case of poisoning from eating wild parsnips. The boy was having convulsions, pupils greatly dilated. He was given morphia, hypodermically, had nine convulsions which were followed by deep stupor and recovery.

Dr. George L. Barr had seen a family of four poisoned by eating same vegetable; one died before he arrived on the scene, the others he saved by giving morphia. Dr. J. Glahn had seen four children poisoned from playing with Jamestown weed; symptoms same as in cases reported above. He also gave morphia. Dr. T. H. Turner had seen a case of poisoning from wild parsnips. Drs. C. Todd and D. M. Griffith also discussed the case.

Dr. J. S. Harris read a paper on "Acute Infantile Diarrhoea," which brought out a long and interesting discussion. Those taking part in the discussion were Drs. J. W. Ellis, R. B. Gilbert, C. H. Todd, J. A. Woolfolk, C. Z. Aud, A. M. Griffith, J. Glahn, E. L. McCormick, J. P. Heavrin and J. D. Russell. At this point the society was invited to a barbecued dinner set by the local physicians and their friends.

At the afternoon session Dr. J. W. Barnhill read a paper on "Typhoid Fever," which was discussed by Drs. A. Davis, J. E. Payne, J. W. Ellis, C. H. Todd, H. K. Osborn, S. S. Watkins, E. B. McCormick and J. Glahn.

Dr. R. N. Filatreau read a paper on "Failures." This unique paper was discussed by Drs. E. B. McCormick, D. M. Griffiths, S. J. Harris, J. W. Ellis, J. W. Barnhill and J. A. Woolfolk.

Dr. R. B. Gilbert read a paper on "Capillary Bronchitis in Infants." The paper was greatly enjoyed, but owing to the lateness of the hour, and a threatened rain, it was not generally discussed.

Drs. T. W. Blanford and L. D. Freeman made application for membership.

J. J. RODMAN, Sec'y.

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The *Fayette County Medical Society* held its regular monthly meeting at the courthouse in Lexington at 8 o'clock p. m., on June 13th. President Patterson of State College was present and addressed the society upon the subject of a Medical Department to State

College at Lexington. The society passed resolutions to consult with the municipal authorities and request them to consider the expediency of an appropriation for the erection of a suitable building in which to conduct the classes of such a department. As most of the time was taken up with the discussion of this matter, the scientific program was postponed until next meeting.

Dr. Pryor presented the following resolutions concerning the Pure Food Bill:

Whereas, The adulteration and mis-branding of food and drugs is a menace to public health, and

Whereas, Besides the general fraud upon the consumer and the injury to public health, the adulteration and mis-branding of foods make it difficult for invalids to adhere to prescribed diet, by reason of the false statements made in the labels of many prepared and predigested foods, and,

Whereas, Many medicines and remedies put upon the market contain drugs not indicated on the label that should only be taken upon the advice of a physician, or at least with the knowledge of the consumer, and,

Whereas, A national law is needed to supplement port inspections and state legislation in order to effectively control the adulteration and mis-branding of foods and drugs, therefore, be it

Resolved, By the Fayette County Medical Society that we respectfully request our representatives in the House of Representatives, and our representatives in the Senate, to work and vote for the passage of such national legislation as will impose honest standards and truthful labels upon all substances intended for human consumption, before such articles of food and drugs are shipped from one factory into thousands of stores thousands of miles from where the article was adulterated, and be it further

Resolved, That we respectfully request the local and state medical associations of Kentucky to urge upon Congress the necessity of such legislation.

W. H. SMITH, Sec'y.

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The *Fayette County Medical Society* held its regular monthly meeting at the courthouse in Lexington on July 11th. We had with us a visitor from Boyle county, Dr. Jackson, of Danville, and it was voted to make him a corresponding member.

The program of the evening was a symposium on mastoiditis, the etiology and pathology being taken up by Dr. McClure, the subject of its diagnosis by Dr. Trapp, and its treatment by Dr. Stucky. The individual papers covered the subject so well that they left nothing to be desired.

Dr. Stucky mentioned the adoption by the Boston Otological Rhinological and Laryngological Society of the term "myringotomy" for the old and less desirable term of "paracentesis."

There was a good deal of discussion regarding the use of ice in these cases. Dr. Norris said he thought it desirable to operate early in those cases of mastoiditis occurring in the course of a chronic middle disease, but that he believed in trying to get along without operation in those primary cases not engrafted on a chronic middle ear condition. He also said that ice was so beneficial in some cases that they did not have to be operated on. Dr. Stucky took the ground that ice was apt to relieve the pain and mask the symptoms but not alter the course of the disease. Dr. Trapp pointed out the importance of the character of the infection as to the liability of on operation being needed, the number increasing from a staphylococcic to a pneumococcic and finally with a streptococcic infection, when practically all cases come to operation.

Dr. McClure showed the importance of myringotomy early in the disease at the first sight of any bulging of the tympanic membrane.

W. HERFORD SMITH, Sec'y.

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The *Harrison County Medical Society* held its regular quarterly meeting on Monday, July 3rd, at the office of Dr. D. C. Patterson.

Dr. B. B. Petty reported a case of Spleno Medullary-Leukemia; diagnosis confirmed by blood examination by Dr. Joe Boyd, who exhibited specimens.

Dr. J. E. Wells, read a paper on "Diabetes Mellitus;" discussion opened by Dr. B. G. Gillespie.

Dr. H. D. Meek read a paper on "Typhoid Fever;" discussion by Dr. M. McDowell and others.

Drs. Cram and Woolery made application for membership in the society.

Drs. B. B. Petty and J. P. Chamberlain entertained the society at lunch.

J. M. REES, Sec'y.

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AN EXHORTATION TO THE OLDHAM COUNTY MEDICAL SOCIETY.

Dear Brethren of the Oldham County Medical Association:

Again we have met to assist, encourage, and to cheer one another in our chosen profession.

The life of the country doctor is full of anxieties, toil and disappointments; often he is not appreciated, but maligned, cheated and misrepresented. No other vocation in life is so exacting. There is no time he can call his

own. The highways are never too bad, the night too dark, the storms too raging, the sun too hot, for him to be called on to leave his bed, his fireside, his loved ones, and go forth to minister to the sick, and cure their bodies, lessen their pain, encourage them in the hope that they will soon be well again. He is the heavenly messenger who enters every home, be it the palace of the rich, the home of the well to do, or the hovel of the poor. He enters all alike, to assist, relieve, to give hope to save.

There are very few things in this life that I love more than my professional brother. First, because he deserves it. Second, because I know of his hardships, trials and disappointments and how very ungrateful some of his patrons are. Third, because I, being in the same boat, know of the storms that so often overtake us and threaten to sink us to the bottom of the deep waters of despair. And last, but most important of all, because, when we have spent our energies, our time, our money and old age creeps on, we are left in poverty and want.

Dear brother this ought not to be. Let us wake up and take on a little business sense. Let's love the masses less and our brother and ourselves more. Especially do I beg of you to remember the wife of your bosom, that pure gentle companion who forsook all for you who is the mother of your sweet, innocent children, who toils and asks only your love, your loyalty, your support. See to it if you were called away to-morrow, she would have a competency and not be thrown out on the cold charities of this world. Then let us adopt more business-like methods in the future, and those who have robbed us and spoken evil of us will pay us and honor us the more.

I suggest that we, as an organization, to-day take steps to raise a fund to found and maintain a home for the aged and destitute physicians of the grand state of Kentucky. I earnestly beg of you to do this. We can do it. Will you? Let us be up and doing.

Yours in sincerity,

JOHN H. SPEAR.

April 27, 1905.

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The *Kentucky Valley Medical Association* held its twentieth semi-annual session at *Torment, Ky.*, June 22-23, 1905. The meeting was called to order at 10:50 a. m., by the President, Dr. A. H. Barkley, of Lexington. The Divine blessing and guidance was evoked in a very appropriate way by Dr. J. H. McKinley, of Winchester. In the absence of Dr. R. D. Cox, Sr., who was to make the address of welcome, Dr. C. H. Williams supplied his place. This address was eloquently responded to by Dr. S. W. Willis, of Pine Grove.

Reading of the minutes of last session and miscellaneous business was next in order, after which we listened to a very fine address from the President, Dr. Barkley, of Lexington.

Dr. U. V. Williams, of Frankfort, the "Bill Nye" of the medical profession in Kentucky, was made an honorary member of the Association. By an unanimous vote of the Association, a committee of two, Drs. W. B. McClure and I. A. Shirley, was appointed to go before the K. S. M. A. and urge it to appoint a committee to go before the legislature and ask it, in the name of the medical profession of the State of Kentucky, to have placed in Statuary Hall in Washington, D. C., the statue of Dr. Ephriam McDowell.

Quite a number of very interesting papers were read and discussed, also a report of a number of cases. Lexington and Olymphia Springs were proposed for our next meeting place; a vote was taken and Lexington got the meeting by a big majority. The meeting will be sometime in October, the date to be decided upon later.

The social part of the program was the best we have ever had. Miss Mall, of Lexington, who has a fine contralto voice, gave us several fine songs. Miss Esther Margolen, of Paris, and one of the best lady violinists in the State, gave us several very fine selections; in concluding her part of the program, she played "Old Kentucky Home," and was loudly applauded and highly complimented. We had several toasts from a number of doctors, including one from Dr. U. V. Williams, which was considered by all present to be the finest we have had, and on concluding his remarks he was loudly applauded. And last, but not least, was an address by Mr. J. H. McCoy, of Lexington. His talk was enjoyed very much by all. Mr. McCoy cannot be excelled by any one in this, his specialty. This was the best meeting in the history of the Association, and everybody went away well pleased.

A number of the officers of the Kentucky State Medical Association were present, viz.: Dr. F. H. Clark, President; Dr. B. Littlepage, Third Vice President; Dr. James B. Bullitt, Secretary; Dr. W. B. McClure, Treasurer; Dr. Louis Frank, Orator in Surgery; Dr. I. A. Shirley, Councilor for Tenth Congressional District.

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Kentucky Medical Journal, Louisville, Ky.:

At the last meeting of the Oklahoma State Medical Association, held in Guthrie, on May 10 and 11, 1905, officers were elected as follows: C. D. Arnold, El Reno, Dean; R. H. Tullis, Lawton, President; N. Rector, Hennessey, First Vice President; C. T. White, Lamont, Second Vice President; R. D. Lowther, Norman, Third Vice President; E. O.

Barker, Guthrie, Secretary-Treasurer; W. E. Dicken, Oklahoma, Councilor First District; A. L. Blesh, Guthrie, Councilor Second District; M. A. Kelso, Enid, Councilor Third District; J. M. Bonham, Hobart, Councilor Fourth District; J. H. Barnes, Jet, Councilor Fifth District. Dr. J. A. Hatchett, of El Reno, was elected delegate to the A. M. A., and Dr. A. K. West, of Oklahoma City and Dr. Ira B. Bartle, of Carmen, were elected alternates.

The place of the next meeting was fixed at El Reno, which will take place as follows: First meeting of the House of Delegates will convene at 7:30 p. m., on the second Tuesday in May, 1906, and the scientific body on Wednesday and Thursday following.

It was unanimously decided, that no social function shall be allowed to interfere with the scientific sessions.

Out of the twenty-six counties in the Territory twenty-four are now organized with a membership of 405. Many good papers were read and discussed.

E. O. BARKER, Sec'y.

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The *Warren County Medical Society* met at the Elks' Club Rooms, on Wednesday, June 14th. In the absence of the President it was called to order by the Vice President, Dr. Bone Stone. Upon motion of Dr. Souther a minute book was ordered purchased by the Secretary. In the absence of the essayist, by request of the presiding officer, Dr. A. T. McCormack opened the discussion on "Jaundice." He called especial attention to the forms of jaundice dependent upon diseases of the gall bladder in cases of obscure indigestion, with or without recurring attacks of colic, and with or without jaundice. He described a number of cases coming under the different heads.

Dr. J. L. Neal reported the following case: A female, forty-five years old, married, had attacks of colic for fifteen years and frequent attacks of indigestion for three years. Preceding last illness the attacks were less frequent. At this time she weighed 235 pounds. She had German measles and following it began to lose weight and strength. She had a slight irregular fever, loose bowels with putty-like stools, liver large and soft, from the beginning a bright yellow jaundice. The pain was marked under right shoulder blade. Urine bile-stained. After six months had hemorrhages from gums, nose, uterus, and other mucous membranes. Metorrhagia continued up to death. His diagnosis at first was gall stone, and afterwards he thought it was complicated by malignancy. At times the jaundice was better, but lasted continuously for eighteen months before death. He

tried olive oil, phosphate of soda, compound oxgall tablets, etc., with no effect.

Dr. J. H. Blackburn also saw this case. The recurring attacks of colic for the long term of years was noteworthy. When he saw her she had been sick a year. The white bowel discharges had lasted from February until October, and then jaundice became more marked. The stools were very foul. Had lost 100 pounds weight. Had an attack of colic in October, one in November, and one in January. All this time jaundiced, and nauseated frequently. He thought the history was plain, at first gall stones in gall bladder, then in cystic, and then in common duct, and probably complicated by malignancy. He spoke of the fact that operation had very properly been advised by Dr. Neal years ago.

Speaking on the general subject, he said he had most frequently seen cases of simple catarrhal jaundice, and had seen this at times assume almost epidemic proportions. The other symptoms were sick stomach, vomiting two or three days and then jaundice. The patients usually said they "Felt as bad as the devil," which describes the case. He also spoke of jaundice complicating typhoid fever in the form of cholecystitis, and described one case that ruptured into duodenum and recovered.

Dr. E. A. Cherry had seen frequent acute cases, and that in most of his cases jaundice was not due to gall stones. He had seen one case that had frequent attacks, during which time she expelled numerous stones. He had treated such case with Carlsbad mineral water with much success.

Dr. J. H. Souther said his experience with jaundice was limited. He had not seen a case in general practice for the last eleven years. He thought Dr. Neal's case was cancer of the duodenum.

At this point President Blackburn took the chair.

Dr. Strother reported a case in his practice at the present time of a woman fifty-two years old who had been passing gall stones for fifteen years. During attacks the pain was intense. It frequently required several grains of morphine by hypodermic to control it. Attacks were frequent and usually lasted twenty-four hours. The pain was toward the right shoulder. Dr. G. H. Freeman spoke of jaundice neonatorum, and told of a recent case in which he had seen recurrent attacks.

Dr. MacCracken thinks that St. Thomas probably came from Missouri, and said it would be necessary to "show him" some of these subjects before he could make a diagnosis. He thinks we make far too few autopsies, and that we ought to confirm or disprove our diagnoses. He markedly disap-

proved of medical hobbies, and spoke of the fact that laboratory methods had improved so rapidly that many of our mistakes could be corrected by them. He very kindly offered to examine pathological specimens for members of the Society.

Dr. H. P. Cartwright thought that jaundice of the new born was usually hematogenous, more rarely due to gastro-duodenitis. He spoke of a woman who had typhoid fever, during convalescence pain in the gall bladder. After fourth day, jaundice, next day comfortable, urine almost pure bile. The menstrual fluid was a bright green. She had several attacks of tingling in the fingers and toes, pulse small and slow, slightly restless, temperature subnormal, marked depression. She rallied under hypodermics of morphine, atropine, and strychnine. He asked if this was the cholemia spoken of by Flint.

Several of the members paid their annual dues, and, after a very interesting session, during which twenty-two members were present, the meeting adjourned.

Respectfully submitted,

A. T. M'CORMACK, Asst. Sec'y

BOOK REVIEW.

AMERICAN ALKALOMETRY, VOL IV. A DIGEST OF THE CLINICAL TEACHINGS, 1902 AND 1903.

The fourth volume of the American Alkalometry series is a great improvement over the preceding volumes in that the pruning knife of the editors has been freely used. The articles are written by more capable men, are more full and complete, more trustworthy, and more convincing. There are not so many sweeping laudatory expressions of opinion from men whose experience has been gained within the year of graduation. It is not so necessary to apologize for alkalometry or to boast of its merits in extravagant terms as it was five years ago, when few knew of it or appreciated the significance of the movement with which Drs. Abbott and Waugh have been so closely associated. All honor to them for their valiant fight.

Of the many excellent articles, Shaller's upon aconitine will well repay reading and re-reading. "Straight Talks on Alkalometry" should set a man to thinking, unless he cannot or will not think.

"Alkalometry for the Aged," by Dr. Ferran, offers many valuable suggestions for the relief of the ills of the aged, those who are too frequently overlooked by the general practitioner and who are forced to be con-

tented too often with the dictum, "Oh! that is one of the ills due to old age and there is nothing to be done for it."

Much the larger portion of the volume is devoted to the therapeutics of typhoid fever, pneumonia, malaria, and the other more common affections, and many valuable therapeutic hints may be found scattered through these articles.

The editors must be commended for the studies upon nuclein and various alkaloids. They are accumulating the experience of thousands and then giving a scientific value to them by the purely theoretic study of the actions of alkaloids.

PHILIP F. BARBOUR.

FIGHTING TUBERCULOSIS IN MONTREAL.

An important report has recently been made to the Hygienic Committee of the City of Montreal. Last June Dr. de Martigny, of Montreal, was appointed a special commissioner by the Montreal Hygienic Committee to proceed to Paris and investigate the Marmorek system of treating consumption. On his return to Montreal a short time ago, after having spent some months in Paris, Dr. de Martigny submitted his report. He is thoroughly convinced from his observations and experiments that Marmorek's serum possesses wonderful efficacy, and feels satisfied that if it were employed in the treatment of all of the tuberculous of Montreal, that tuberculosis would soon, or in ten years at least, be as scarce as smallpox. Dr. de Martigny concludes his report by strongly recommending the employment of Marmorek's serum in the treatment of tuberculosis, stating that the treatment in itself is harmless.—(Medical News, February 25, 1905.)

TUBERCULOSIS IN BOSTON.

At a meeting of the Brookline, Mass., Medical Society, on February 8, Dr. Edward O. Otis presented a communication on tuberculosis. He said there were more than three thousand persons in Boston suffering from pronounced tuberculosis in its various stages. The deaths from the disease in 1903 numbered 1,227, and in 1904 11½ per cent. of all the deaths in Boston were caused by tuberculosis. Most of the hospitals closed their doors to sufferers from this disease, and consequently provision for the care and treatment of consumptives was totally inadequate, notwithstanding that special provision was made for them by the pauper and penal institutions of the city and that a few patients were received in the private hospitals.—(Medical Record, February 18, 1905.)

KENTUCKY MEDICAL JOURNAL.

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LOUISVILLE, KY., SEPTEMBER, 1905.

NO. 4.

PUEPERAL CONVULSIONS.

By T. H. GARVIN, M. D., Horse Cave, Ky.

Puerperal convulsions are met with often and it seems to me to be a disease that is not as well understood as it should be by many of our general practitioners. There is no disease that we are brought to face that sends greater horror to the very souls of all who may be present when an attack comes on. Your patient may be seemingly doing just as nicely as you could wish; everything seems bright, the patient cheerful, looking to soon be delivered, when all at once a seizure comes and you are face to face with the monster, as you may call it.

The convulsions resemble very strongly epilepsy. It is not a rare disease and is dangerous to both mother and her unborn child; and even if the mother should escape immediate death she is subject to septic infection and to chronic kidney trouble and to sensorial centers; vision and hearing are both, at times, very badly injured. I myself have had two patients whose vision was considerably injured and permanently so, as three years have passed with one and no improvement in vision.

Its essential etiology is not yet settled, neither is perfect professional agreement in the medical and obstetrical treatment of the disease. For these reasons the disease is one of great importance, and therefore demands careful and painstaking consideration. As to the frequency of its occurrence our writers and clinical teachers differ, some claiming one in three hundred and fifty, some in five hundred, and others in two hundred and fifty or sixty. That seems to be about the per cent. from the sources of information that I can gather. The per cent of deaths of the mothers seems to be about twenty-five, that is, where one mother dies there will be three recoveries. Absolute accuracy is not claimed for these statements because errors may arise as to the cause of death. Thus a patient who has convulsions may die of septic trouble and yet be reported as dead of convulsions.

It seems to be a well settled fact that puerperal convulsions occur more often at certain times than at others and also in certain localities, and in some years they are more fatal.

Some years you will find that the number of cases are more frequent and that instead of one in two hundred and fifty you will find one case in say one hundred and fifty.

The periods and times when the convulsions are liable to occur are during pregnancy and during labor and after labor. During labor they occur most frequently; next before labor. Taking one hundred and twenty cases of convulsions, about forty occur before labor, sixty during labor and twenty after labor.

In recording the cases that occur during labor there are some discrepancies because the convulsions nearly always bring about labor, though they commenced in pregnancy, and yet it is reported as occurring during labor. When the convulsions commence or occur during labor, it is nearly always during the first stage of labor; if after labor, it comes up in a few hours, though several days may elapse. Simpson gives one case that occurred twenty-eight days after. Of course a case coming up at such long intervals after labor may be questionable as to whether it is not a case of epilepsy. In a large number of cases occurring during pregnancy they come as soon as the fifth month. I have had within the last six weeks a fatal case that came up during the latter part of the fifth month, and there are cases on record occurring much sooner.

Permonitory symptoms: The first convulsion may come up without any warning whatever, the patient seeming to be in the best of health is suddenly seized with a convulsion. There are as a rule premonitory symptoms such as nausea, headache, dizziness, disturbance of vision such as seeing strange objects or seeing two objects, or sometimes seeing half only of an object as the half of a face, muscular tremors, ringing in the ears and severe pain in the region of the stomach and back. The three symptoms of the most importance are disturbances of vision, pain in the head and pain in the stomach. The pain in the stomach is by no means a constant occurrence, but when it does occur and is severe you may be sure that a convulsion is at hand. The headache is usually frontal though it may be one or the other sides of the head. It is seldom in the back of the head. The disturbance of vision may result in complete blindness as it has in some well authenticated cases. If the headache is accompanied

by flashes of light the convulsion is at hand, especially if there is ringing of the ears and a tingling numbness extending down the limbs.

In some cases there is an aura, the patient having a feeling as though she were falling and then the convulsion. Another patient will utter a cry of terror and the convulsion comes at once. Another patient felt that some one was about to strike her in the face and the convulsion came just as she raised her arm to protect her face. When you see a pregnant woman who has some or many of the above named premonitory symptoms and especially if she has swollen feet and ankles you can be sure she will have convulsions if there is not something done to set it aside, especially if there is scanty urine and it is albuminous which is nearly always the case. During the attack the patient lies in a fixed position with the eyes seemingly directed to some distant object. She is unconscious, pays no attention to what may be said or done. In a few seconds the eye balls move in various directions; then become perfectly still turned upward and generally to the left; the head changes from side to side finally becoming still and turned to the right, the eyelids open and shut and the trembling tongue is thrust between the teeth and often badly bitten. Then the clonic and tonic movement of the limbs, continuing from one to five or ten minutes while the thumbs are pressed into the palms of the hands and the fingers tightly pressed down on the thumbs. Then in a few seconds the rigid body becomes relaxed and remains motionless and the patient has stertorous breathing, and there is expelled from the mouth a frothy saliva often tinged with blood. She may remain for quite a while in a semi-conscious condition, or she may regain perfect consciousness and go through labor if it is at hand and have no more convulsion, or if during pregnancy go on to term without any other attack.

From the time the convulsion begins till it is over varies from a few seconds to five minutes; the pulse from being often normal becomes weak and very much accelerated, the skin is covered with a sticky, cold perspiration, the return to consciousness is gradual; sometimes consciousness is not regained before another convulsion. You will find that the interval between the convulsion and the return to consciousness is a complete blank. The patient remembers nothing that has passed from the time of the convulsion to return of consciousness. As a rule the gravity of the case depends on the number of attacks—to which there are exceptions. If the patient has as many as fifteen convulsions the case is a very grave one, though we find a few that

have exceeded that number very much. Some have had as many as thirty and then made a good recovery. It is quite rare for the convulsions to continue over twenty-four hours though I recently had a case that lasted sixty hours before death came. You sometimes find the convulsion comes on only once and passes off and the patient makes a speedy recovery, but most often after a few minutes or half an hour there will be a recurrence. Some patients have had as many as one hundred convulsions before death came to their relief. If you find your patient has had some temperature and that it increases as the convulsions come and go until 104 or 105 is reached it means that case is a grave one. The urine as a rule is scanty, highly colored and nearly always contains albumen, yet all patients who have scanty urine with albumen do not have convulsions, and on the other hand patients who have convulsions do not always have scanty urine or albumen either. If the convulsions come on during the latter part of pregnancy the foetus is as a rule expelled dead, though not always.

I had a patient who had a severe convulsion two months before term who went on to term, had no more convulsions, gave birth to a fine healthy boy baby. The per cent of mortality to the child is very great. It is, according to the best statistics that I can gather, about 50 per cent during pregnancy and at term both. The convulsions may terminate in either death or complete recovery or the patient be left in a semi-demented condition, or in insanity. The diagnosis is between epilepsy and puerperal convulsion, they having many similar symptoms. In puerperal convulsions the scanty urine, the pregnant state and albuminous urine settle it, as in epilepsy the urine is freely passed and in large quantities. Prognosis is good if the attacks come on during labor and the uterus can be emptied without violence. The attacks that come on before term are the most serious, those at term next and those after labor the least dangerous.

One of the most dangerous symptoms is the complete suppression of urine. It always means a fatal ending. The one predisposing cause is in the primi para, as I have only seen one case that was not a primi para and that patient had puerperal convulsion in first and second labor. Plural pregnancy is another exciting cause. Heredity plays a small part as an exciting cause. When you have all of the premonitory symptoms, anything may prove to be an exciting cause. The movements of the child, touching the os with the finger, placing the hand on the abdomen. There are doubtless many poisons circulating

in the blood that play their part in causing the convulsion. It is certain that uremia is only one of the many causes. It is a toxæmia from several causes as we find the brain and kidneys, and often the liver, to be at fault and, as pointed out by some of our best clinical teachers, the pathology is not very clear as yet.

Now as to the treatment; it is to remember that we have some cases that are really malignant and will resist any and all treatment. The treatment before labor is of the greatest importance. If you can get the patient under your control during her pregnant state you can nearly always prevent the convulsions. The first thing is to see that your patient's secretions and excretions are kept up to the best health standard, bowels kept open and easy in their movements, skin kept in the best shape so as to do its part in the elimination. If there is edoema of feet and ankles you want a free purge, and nothing is better than compound jalap powder. It moves the bowels freely, large watery actions. And for the skin, pilocarpine in one-sixteenth grain doses hypodermically will sweat freely. Also hot sponge baths. If you follow a line of treatment in that way your patient will always come out all right. Then if you have a full, strong pulse with the vision not right, the patient complains of seeing two objects or sometimes seeing only half an object, bleed her freely and you will be surprised at the result. This is the prophylactic treatment.

When the convulsion comes on, as most of our cases do that we have not seen before, our treatment has to be made to meet the demands that are at hand.

I would then, if she had the strong, bounding pulse, bleed her freely, then the inhalation of chloroform used freely till some relief is had, then the hypodermic use of norwood, tr. veratium in 5 drop doses every thirty minutes till three or four doses are given. It often gives a wonderful result. Then the hypodermic use of morphia. I would use plain morphia. I find it better in these cases. Then of course, as soon as it can be done, deliver the child if it is at term and it can be reasonably done. You sometimes get good results from enemata of chloral in twenty to thirty grain doses when your other remedies have failed. This is about the line of treatment that I would follow, using one or more of the remedies as I deemed best to do.

CLIMATE AND RELAPSES, IN PULMONARY TUBERCULOSIS.

By ARH DIXON, JR., M. D., El Paso, Texas.

Since it has been demonstrated that incip-

ient tuberculosis can be successfully treated in almost any portion of the globe, climate has received so many hard blows that one hardly has the temerity to say anything in its favor no matter how deep his convictions may be on the subject. But opinions formed from years of experience, including a personal one which was highly disastrous, are hard to give up and mine remain unchanged, notwithstanding the statements of high authority that climate has little influence on the disease one way or the other. To my mind there are few things more certain than that in properly selected cases (and none other should be advised to change climate) removal to a suitable climate offers the victim of tuberculosis the greatest chance of recovery. Even if one believes with Cornet, that the essential factor is the amount of time which any given climate permits the patient to spend in the open air, the rarity of atmosphere, sunlight, humidity, etc., being of less importance, the climate advocate still has much the better of the argument. For in a suitable climate practically the entire time, day and night, can be spent in the open air, and at the same time the patient has the benefit of altitude, a maximum amount of sunshine and pure air, a minimum amount of humidity and the vitalizing effect of the great change in day and night temperature, which according to Yeo is the greatest factor in producing immunity in tuberculous subjects. Other writers, notably Flick, go so far as to state that climate has practically nothing to do with the successful treatment of phthisis. If this be true, why is it that relapses are so frequent in all classes of patients, from improved and greatly improved, to "arrested," in those returning east after a sojourn in the southwest? Relapses in the first two classes are so great that one can almost say that all relapse. The natives in this section are even aware of this, having seen so many patients return home in apparent health and in a few months come back in worse condition than when they first arrived.

The usual reason given for the relapse is that returning home the patient no longer follows the life he was taught to lead while west, and in some cases that he returns to work, and in a small per cent of others this is true. But relapses are by no means confined to these. It occurs in those who not only live the same life they did in the health resort but who should be benefitted by the change of diet, which in well-to-do patients is usually for the better, and the mental effect of once more being at home with family and friends, a consummation looked forward to during the entire absence.

Moreover most of these cases return home

in the spring and the relapse occurs in summer, a season that in unsuitable climates the tuberculous do their best. Since the relapse occurs after a return to the home environment, which means so much to one who has left home ill and losing ground and returned at least much improved if not entirely free from symptoms, where the food is usually better, and during the most favorable season, and notwithstanding the mode of life is the same, what, if not the climate, is the cause? If climate has practically nothing to do with it, these patients instead of relapsing would go on to recovery and the rate of gain would be faster than during their stay in the southwest. Does it not stand to reason that without the stimulating effect of the almost constant sunshine on the patient's spirits; the inhibitory action of the pure dry air on bacterial development, the lessening of the expectoration and the healing effect on the diseased tissue; the beneficial effect of the altitude which includes an increase in the number of red cells and the percent of hemoglobin; the promotion of drainage in open cases and the stimulation of appetite and metabolism; the ability to be in the open air day and night and the tonic effect of the great change between day and night temperature, the patient has lost the immunity, partial or complete, acquired under these favorable conditions and hence the relapse?

One of the first symptoms of relapse in patients with open lesions is an increase in cough and expectoration and a gradual return of both in patients with closed lesions, being the result of the change from a dry, pure air to a moist bacteria laden one, and from an elevation to a much lower level. Then comes malaise, a husky voice, loss of weight and appetite, fever, indigestion, sweats and the whole familiar chain.

Further proof that the relapse in these patients is due to the climate is that those returning to a favorable climate, if the change is not delayed too long, and too much damage has not been done, again begin to improve although the improvement is slower than during the first stay.

The report of Committee on Influence of Climate in Pulmonary Tuberculosis, at the late meeting of the National Association for the Study and Prevention of Tuberculosis, well states the case for climate, but none too strongly, and it hardly agrees with the statement that "climate has practically nothing to do with the successful treatment of the disease."

No advanced worker in this line would today as was formerly done, place climate first in the order of therapeutic measures. Let it

never be forgotten that hygiene, teaching and supervision must always come first.

But granted that they are properly attended to, then enters the powerful role of climate, reinforcing and accentuating the effects of these and other measures, and yielding results that can not be approached even with the same care and watching and food in less favorable climates.

When more discretion is used in advising patients to change climate when their financial status, temperament, state and form of disease, condition of heart and nervous system; and the altitude and other features of climate they are being sent to, are considered, the brilliant results now obtained in favorable climates in suitable cases, will become more brilliant and few unfortunates will be sent West doomed to disappointment and death.

RANDOM THOUGHTS ON MEDICINE.*

By CHARLES W. ATKIN, M. D., Lexington, Ky.

After accepting our host's kind invitation to present some "Random Thoughts on Medicine," I found myself in the fix I once heard described by a physician who had been sick four weeks. He said, that four weeks' illness had kept him from doing any professional reading and that he felt when a professional man had not kept up with current medical literature for three or four weeks he was antiquated as to *recent* medical advancement. Until within the past few weeks I have been unable to read since last August, and at this time I can only *keep up* in a very meager way; hence I must ask your forbearance to the "Random Thoughts" of some experiences in a practitioner's life, without being able to say much of current new thought.

May I say, first, that as physicians we have some faults and make some blunders that may be overcome and avoided if we earnestly endeavor to reach such an end? One of the most common is our failure in trying to hunt up the real cause of the trouble for which we are consulted.

For example, *the careless examination of patients*, or the fact that we take too much for granted upon a few symptoms that are emphasized and possibly exaggerated by the patient.

How often it occurs that a patient presents with a slight cough, nothing definite as to the cause of this symptom, yet the practitioner ventures a prescription—possibly some expectorant or anodyne. The patient may be relieved to some extent but usually there is only

* Read before the Bourbon County, Kentucky, Medical Association at Millersburg, Ky., June 21, 1905.

an amelioration of the symptoms and after frequent routine prescriptions the patient drifts into other hands with, very likely, a similar experience; this thing is repeated time after time until finally the patient drifts into the hands of a more careful, painstaking practitioner who is not content at all until he thinks he has found the cause of the trouble, and then his efforts are to the end of trying to remove the *cause*.

It is a good plan when a persistent cough presents, for us to begin by examining nose and throat to endeavor to find located there some irritation that makes a reflex cough. Any practitioner of average ability can soon become familiar enough with the normal tissues of the nose and throat to readily detect any abnormality, and frequently can correct the trouble without the aid of consultation. The only instruments necessary to make a fair examination of the nose and throat are such that every practitioner should have, viz.: a head and throat mirror, nasal speculum and tongue depressor. The patient's back to a window with the lower sash covered causing the light to come from the upper sash and excluding all counter lights, so that the examining physician can be directly in front of the patient and thus send the rays of reflected light from his head mirror into the nose or throat of the patient. By making a rule of examining patients in this way you soon become conversant with the normal and abnormal conditions.

If no cause be found for the cough in the upper air passages, then strip your patient to the waist and make a careful examination of the chest. Do not be content with examining the apices of the lungs alone, for often as serious disease as tuberculosis begins elsewhere. Right here let me call attention to the fact that right near the lower margin of the right scapula we often find the first signs of this dreaded disease.

Again you want to examine the heart for a reflex cough; and we are never justified in making an examination of the lungs without excluding pathologic pleuritic conditions. May I just here throw in parenthesis, that pleurisy with effusion is more often, in my experience, rheumatic than it is tuberculous? and anti-rheumatic treatment, after removing the serum by aspiration, is found to be most satisfactory.

If in these "Random Thoughts" I can be the means of helping to strengthen the resolution of any brother practitioner in making thorough pains-taking examination of every case he may have, then I shall feel amply repaid for giving the few moments to jotting down these lines.

One can hardly over appreciate the experience that a careful surgeon or physician gets from doing general practice for a few years. It broadens the man and so much better prepares him for any special line of work his fancy and ability may lead him to take up. A woman presents herself to you with abnormal symptoms of the reproductive organs when she is about forty or even under that age. Do not content yourself by prescribing some of the so-called uterine tonics and explaining to the patient that the "change of life" is approaching, for if we make a practice of this a certain per cent of our patients will fully experience this "change of life" by passing from the terrestrial to the celestial. A woman should not have pathological changes that give real trouble at the climacteric period, and any irregularity about these organs properly examined is a safeguard to womankind.

I recently had the experience of examining a woman aged 33, the mother of four children, who had been under continuous treatment two years for leucorrhoea. She showed positive evidence of cervical malignant disease, the trouble having begun in the scar tissue of an old tear. A month before I saw her she was advised to have a trachelorrhaphy, but later she was advised to have a radical operation done. If this leucorrheal symptom should have been treated for another six months or a year as it has been the past year or so, the day of physical salvation would have passed.

Examine bi-manually with the most thoroughness possible, and then make a careful inspection of all organs that can be brought into the visual field.

Most practitioners at some time in their lives meet with cases of puerperal eclampsia, and the usual surroundings when confronted with this condition are such that all except the most deliberate will practically "lose their heads." It will pay you to carry hypodermic tablets of pilocarpine all your professional life if you only have to use the preparation in one case of puerperal convulsions. During the twenty years that I did active obstetrical work, I saw only a few cases of eclampsia and all recovered; in every case except one pilocarpine was used. Of course the other classical treatment of emptying the uterus, bowels, etc., are given their proper consideration by prompt attention. When you see the case, let it be in the stage of coma or active convulsion, give at once one-fourth grain of pilocarpine. Then under artificial anaesthesia, if necessary, the evacuation treatment can be looked after. If there be no free diaphoresis in one hour give a second dose of pilocarpine and you will be rewarded in about thirty minutes by finding your patient in a good sweat and

free from any convulsive twitching, or coming out from a comatose condition. Be ready to try it when the trying time comes to you in these cases.

One more "Random" shot and I conclude. The recent results in general anaesthesia through the administration of ether by the bowel is a thing of marked interest. A professional friend who has recently witnessed this work will shortly demonstrate it in our city. The claim that no nausea follows, that it can safely be administered, if necessary, even when a pneumonia exists and that the anaesthetist is not in the way when head surgery must be done, as well as other favorable claims will demand our careful consideration.

In conclusion permit me to thank our host for all of his kindnesses as well as the Bourbon County Medical Association for their courtesy and consideration.

COLLES FRACTURE.*

By W. E. SAVAGE, M. D., Cincinnati, Ohio.

When Dr. Miller was kind enough to ask me a little while ago to read a paper, of my own selection, before your society, I was at a loss for a subject—one that would prove of interest to you and to me and the discussion of which would redound to our mutual good.

Personally I should have preferred coming here and listening to a paper read by some one of you on a subject, such as typhoid fever. Since, however, I was to read a paper and since it was left to me to choose my subject, I have selected as a topic "Colles Fracture" because of its frequency and universal occurrence and because of its not uncommon interest to the general practitioner and surgeon alike.

I shall present nothing original in this paper, possibly nothing new. A vast deal has been written on Colles Fracture—some good, some otherwise and it is a curious fact that the fracture described in our text books as Colles Fracture was never described by Colles at all—what he did describe was a fracture of the lower portion of the shaft of the radius located an inch and a half to two inches and a half from the end of the bone (one which is exceedingly infrequent) whereas Colles Fracture, so-called, is a fracture of the lower end of the radius at a distance anywhere from a few lines to an inch from the end of the bone and is frequently met with—rarely indeed does it occur at a higher level.

Robert Smith, of Dublin, examined twenty-three cabinet specimens and never found the line of break at a greater distance than one inch from the end of the bone. It is well I believe before going into the subject to take up

briefly the anatomy of the wrist, especially those points concerned in our intelligent understanding of the pathology and the treatment of this condition.

Here we have the convex border of the scaphoid and semi-lunar bones (two of the first row of the carpus) fitting into the concave articular surface of the radius with the inter-articular fibrocartilage intervening and serving as a bumper. With the hand pronated this radial articular surface looks forward, downward and outward.

The ulna does not enter into the formation of the joint proper being separated from it by the triangular cartilage. We find the styloid process of the radius on a lower level than the styloid process of the ulna. The radius and ulna are attached here by the radio-ulnar ligaments, anterior and posterior. We also have the anterior ligament, the posterior ligament, the internal lateral and the external lateral.

It is to the anterior ligament that I would call your especial attention. It is exceedingly strong, membranous and of course inelastic. From its attachment on the radius it runs obliquely downwards and inwards to be attached to three of the bones of the first row of the carpus—the scaphoid, semilunar and cuneiform. It is with this strong ligamentous band that we have to reckon when considering the manner in which Colles Fracture is produced and the position that the lower fragment occupies.

Colles Fracture may occur at any age but is most frequent in persons past forty; occurring in early life it is probably not a true fracture but an epiphyseal separation; it is due to indirect or transmitted force and is brought about by the individual falling upon the palm of the hand with the arm outstretched.

In the examination of ninety-eight cases of Colles Fracture, Doctor Hamilton, of New York, found all save one caused in this way. The line of break in the majority of cases is approximately transverse though it may be oblique and is found within the limits already mentioned. Normally when the hand is pronated and extended we find that it assumes a position of slight abduction from the body.

This is due to the articular surface of the radius which we have seen looks downwards, forwards, and outwards. The force causing the fracture is transmitted therefore in a direction upwards, backwards and inwards.

There may be little displacement of the lower fragment which is the exception, the rule being that the lower fragment is displaced upward and backward. In other words there is an overlapping of the two fragments partial or complete so that the upper end of the lower fragment looks upward and backwards

and the lower end of the upper fragment looks downwards and forwards. There is a rotation of the lower fragment, the inner surface (prone hand) being on a higher level than the outer or ulnar surface.

As a rule having few exceptions the dorsal periosteum remains untorn. There is a partial or complete tear of the radio-ulnar ligaments—occasionally the styloid process of the ulna is broken off. The styloid process of the ulna is at times forced through the external lateral ligament or maybe over-ridden by it. The swelling that comes on so rapidly, especially on the palmar surface, is due to hemorrhage, extravasation along the tendon sheaths and pressure on veins by the lower end of the upper fragment.

Why does this fracture occur transversely at a distance rarely more than one inch from the carpal extremity of the bone? The theory that the anterior ligament of the wrist plays the greatest part in determining the place of fracture and the position assumed by the lower fragment, seems to me to be well taken. In falls on the palm of the hand this very strong, inelastic band is put on the stretch and if the force is sufficient one of three things has to occur, either the ligament must be torn from its attachment, the bone must break or the carpus be dislocated. The bone being the least resistant breaks at its weakest point which is at the place where the cancellous portion joins the shaft.

The change in the position of the hand from normal adduction to abnormal adduction is due to the changed position of the articular surface of the radius, the relative position of the bones forming the joint being unchanged. The symptoms are pain, swelling, deformity and impaired function.

Pronation and supination are lost. If seen soon after the accident there will be little or no trouble in feeling the upper border of lower fragment on palmar surface. The hand is adducted where before it was abducted. The prominence caused by the displaced lower fragment, the swelling, together with flexion of the fingers, lead Lyston to describe this condition as "the silver fork deformity."

We may have crepitus. The styloid process of the radius is on the same or a higher level than the styloid process of the ulna. The head of the ulna is more prominent than on the sound side.

The diagnosis rarely offers any difficulty but fracture is to be differentiated from dislocation of the carpus. In fractures, the styloid process of the radius is on the same or a higher level than the styloid process of the ulna. The distance from the styloid process of the radius to the tip of the internal condyle

is less than on the sound side. There may be crepitus. In dislocation the normal relation of the styloid process of the radius and ulna is unchanged. The distance from the styloid process of the radius to the internal condyle is the same on the injured as the sound side. There is no crepitus. Many of the reported cases of dislocation are in all probability fractures. In doubtful cases the X-ray may be employed to an advantage.

The difficulty in treating Colles Fracture is in the proper adjustment of the fragment; once reduced, maintenance of apposition is easy. There is no tendency to displacement as is the rule in fractures in general; the weight of the flexed hand will suffice to hold in apposition.

How shall we reduce the lower fragment to its proper place? Direct forced extension of the hand is injurious and unnecessary and is therefore not to be recommended. In complete displacement of the lower fragment forced extension renders a bad condition more serious for the fragment is pinched between the extensor tendons on one side, by bone and flexor tendons on the other. Then, in this method you are almost sure to tear the dorsal periosteum which, as we have seen, was probably not torn when the fracture took place. This periosteum is of service in three ways: in the first place if untorn when reduction is effected, it acts as a dorsal splint; in the second place it is a protection to the soft parts on the dorsal surface during the process of union. A simple and more effective method is to grasp the patient's hand and hyper-extend it. This relieves the tension of the extensor tendons.

At the same time by using traction on the hand you bring the parts into partial apposition. Without relieving hyper-extension or lessening traction with the thumb of your other hand you can easily crowd the lower fragment into place. In recent fractures a great amount of force is unnecessary and the patient experiences little pain.

In fractures of long standing however it will often be necessary and is indeed advisable to give an anaesthetic before trying reduction for in these cases the swelling is considerable and the pain severe.

What form of splint shall we employ? Splints of different material and various shapes have been devised by surgeons from time to time. We have wooden splints, cardboard splints, tin splints and plaster splints, straight splints, curved splints and combination splints.

I have often heard Dr. Conner say that if he himself were the victim of this accident

nothing should be used but a band of adhesive plaster, this being of sufficient strength to hold securely in apposition the fragments that have little or no tendency to become separated.

During my term of hospital service and since that time I have almost invariably employed the following treatment in Colles Fracture after reduction was effected: for the pain, which in some cases is considerable, there can be no objection to the hypodermic injection of morphine. Rarely does it have to be used a second time. A palmer splint consisting of either card board or plaster of Paris, not too heavy, is employed and should extend from two to three inches below the elbow to the metacarpo-phalangeal articulation, bandage not too firmly but securely leaving the thumb free.

It will occasionally be found necessary to either loosen or remove this bandage on account of the swelling. Before leaving the patient it should be seen that the circulation is good and patient's friends should be instructed regarding danger signals of obstructed blood flow. It is well to keep these patients in bed for thirty-six or forty-eight hours with the hand and forearm elevated on a pillow, allowing the position of greatest comfort which is one midway between supination and pronation. After forty-eight hours the splint may be removed and the zinc oxide adhesive plaster applied.

This band should be about two and a half inches wide, its lower border being on a level with the styloid process of the radius or a little below this point. The splint is reapplied and a crinolene bandage used.

I agree with those who contend that this splint is unnecessary. In fact I can see how by its pressure it retards resolution to a certain extent, but personally I can't afford to take certain chances. For instance I might be told that had I used a splint or splints certain results would not have occurred. Hence for the mental comfort of the patient and his interesting friends (not always laymen) I am willing to contribute to his physical discomfort in order to protect myself.

The patient is now allowed to be up and about with the forearm midway between pronation and supination, suspended in a sling, which sling is from the neck. He is asked to report daily if possible for at least ten days. Passive motion is begun at the end of one week. At the expiration of three or four weeks, depending on the age of the individual, all dressings are removed and the patient encouraged to use the wrist. Any number of devices may be employed, the rope, weight and pulley, carrying of buckets of water, etc.

For the swelling nothing is better than

warm soapsuds vigorously applied by rubbing. The treatment of epiphyseal separation differs in no way from that of Colles Fracture. In those cases where swelling and stiffness persist for weeks or months we have probably failed in a correct adjustment of the fragments. With the patient under anaesthesia, forced movements of the wrist will often in these cases accomplish much. Nonunion may be said to never occur. Dr. Hamilton in his report of nearly a hundred cases found no case of nonunion nor was he able to find the report of any in the literature on the subject.

What shall we say to individuals who have suffered this accident concerning the appearance and future usefulness of the wrist? The patient should be made to understand that complete recovery is not a question of days or weeks but more often of weeks and months. It is well at all times to speak the truth but it doesn't necessarily follow that we should tell all of the truth. We can encourage and reassure these individuals with expressions that in reality mean little. The saying that "You will be all right—better off than before the accident," isn't true and had just as well be unspoken. I know of no class of injuries in the treatment of which the physician risks so much and gains so little as he does when dealing with fractures. More suits for malpractice are brought on fracture results than all other conditions combined.

Down our way the surgeon who has a bad fracture case on hand has learned, if you will pardon the expression, to sleep with one eye open. We should, I think, be extremely careful to condemn no man for his failure to get a good result. Such things happen to all of us sooner or later and the man who says that he gets a great many very bad cases and always gets excellent results is either romancing, or distorting facts.

PRESIDENT'S ADDRESS, KENTUCKY VALLEY MEDICAL ASSOCI- ATION, TORRENT, KY., JUNE 22, 1905.

By A. H. BARKLEY, M. D., Lexington, Ky.

Doctors of the Kentucky Valley Medical Association:

Upon being elected to the Presidency of this society, I naturally assumed, as my predecessors have done, all the duties which go with so high an office. One of the first duties required of your President is an address, and it is the first one I will try to perform, and I hope you will be patient and bear with me. Gentlemen, first allow me to express to you my feeling of deep gratitude and my very great appreciation of the honor you saw fit to

do me by electing me to the highest office within your gift.

AN HISTORICAL SKETCH OF THE EARLY HISTORY OF MEDICINE IN KENTUCKY.

The art of healing is co-existent with the creation of man. When God created the world and finished his work by making the first human pair he placed them in the Garden of Eden, surrounded by various herbs and plants that possessed medicinal properties. He endowed man with the intellect necessary to discover and make use of the medicinal virtues of such plants and herbs, and from that time to this all down the ages has gradually discovered and appropriated to the cure of his bodily ills those remedies placed within his reach.

According to Holy Writ the first case on record demanding attention was a snake bite that Adam sustained. The Good Book tells us what followed, and I will not attempt to relate it. Suffice it to say that snake bite is still a very common affliction in these later days when spirits frumenti have become the principal specific with which to treat it; but to be more serious, every one who keeps his eyes open is aware that doctors always keep in the front rank. Few are aware that a doctor was one of the very first explorers who entered Kentucky. Such is the fact, however, as history tells us that Doctor Thos. Walker, who was born in Virginia, emigrated to the confines of our grand old commonwealth. Little is known of the early life of Doctor Thos. Walker, but it is inferred that he enjoyed the best obtainable advantages of his day. Being of a restless disposition he employed most of his time in surveying and outdoor sport, probably finding more remuneration in surveying at that day than in dispensing pills and lotions. He married in 1741, at the age of twenty-six, a lady who possessed a small estate of 15,000 acres of land. Doctors, as most of you know, like the clergy, often marry women who are well fixed in this world's goods. That Doctor Walker faithfully complied with the Biblical injunction and that he was not a believer in race suicide is attested by the fact that his wife bore to him sixteen children. He built the first house ever built within the present bounds of Kentucky near Barboursville.

I will not pursue the record of his life any further, but let it be known that the first real explorer of Kentucky was a physician, Dr. Thomas Walker, who preceeded Daniel Boone by about twenty years.

In 1779 a number of physicians had come to Kentucky from various parts of the North

and East and had settled down to practice their profession. They were kept on the firing line, so to speak, as the Indians committed so many outrages that they were continually kept in suspense. However, they did their work as best they could according to their several abilities. Peace to their ashes and honor to their memories, for they were worthy and earnest followers of Aesculapius.

I have purposely skipped a number of years, as nothing of especial note occurred, so far as the medical profession was concerned, until the dawn of the Eighteenth Century, which marked the establishment of the first medical college west of the Alleghanies. It has been said by Dr. Robert Peter, one of its distinguished professors, "The history of medicine and of the earliest medical men in Kentucky clusters around the name of Transylvania University." The faculty contained one man, by name Dr. Samuel Brown, who in 1794 introduced in Lexington vaccination by inoculation with cow pox. It seems that a band of cavalry came down from some place in Ohio and spread the disease throughout the whole Blue Grass region. They camped at the mouth of what is now known as the Town Branch. Dr. Brown was offered a very large field to try his new remedy; in fact he applied it some time before Edward Jenner was allowed to practice the same thing among his own people, there being something over six hundred cases of smallpox in and around Lexington. He was quite successful, and after his experiments he published his results, which were most gratifying.

The Faculty of Medicine of Transylvania University were all men of great power and fine intellect. Dr. Brown was President and Professor of Chemistry and Anatomy and Surgery; Dr. Frederick Ridgley, Professor of Materia Medica, Midwifery and Practice of Physic. Dr. B. W. Dudley, Wm. Richardson, Caldwell and several others were also members of the faculty, and were no less distinguished than Dr. Brown as shining lights in the medical profession. Under the direction and control of such distinguished men Transylvania Medical College grew rapidly and attained great distinction; its graduates went out into the West, North and South to practice their profession. The Medical Department of Transylvania University had a rough course up to 1819 and 1820. It had many difficulties to contend with then, when the medical schools at the present day know nothing about. In 1819 the college was materially strengthened by donations from the Kentucky Legislature, citizens and various

physicians in Kentucky and the South. The donations amounted to over \$13,000.00, and with this money was purchased in Europe the necessary equipment. Up to this time no fixed place was had to deliver the lectures. They were delivered in various rooms that could be rented about the town, so a joint stock company was formed in 1827, and a medical hall was built in the city of Lexington on what is now the corner of Market and Church streets, and was used until 1839, when a splendid new medical hall was built on North Broadway at the corner of Second street. This was burned in 1863. The Medical Department of Transylvania University, after getting a home of its own, flourished like a green bay tree. At the sessions of 1823 and 1824 there were three hundred and eighty-three students, out of which eighty-four graduated. It was from this distinguished Faculty of Medicine that the Louisville Medical College was founded in 1837 by Drs. L. P. Yandell and John Eastin Cook. As an evidence of its usefulness for nearly forty years it is only necessary to state that during that time it had over seven thousand students, out of which number two thousand were graduated, some of whom afterwards became shining lights in the profession, and reflected luster on their Alma Mater.

I have thus far tried to give you a brief review of some of the early events connected with our profession, and have not spoken at length of any one of the pioneers in medicine, except Dr. Samuel Brown. I shall now speak briefly of one or two men who had considerably more than a local reputation. The first of these is Dr. Ephraim McDowell. He was born in Virginia in 1771; and had the advantages of the best schools of his native state. At the age of thirteen he came with his father through the wilderness to Kentucky. In Danville, then the seat of the best and most intellectual society in the West, under the direction of scholarly teachers the remainder of his boyhood was passed. After receiving a thorough education, he studied medicine under Dr. Humphreys, in Staunton, Virginia, after which he went to Edinburg, Scotland, where he had for his preceptor and friend the great surgeon, John Bell. After spending two years abroad he returned to this country and settled at Danville to practice his profession, the results of which placed him among the greatest human benefactors. His reputation as a surgeon spread rapidly. Patients flocked to him from all the West and South. He found himself well nigh overwhelmed by a large surgical practice, demanding many of the most difficult and severe operations.

The entire profession now accord to him the credit and praise of being the originator of ovariectomy. In 1809 in Danville he first performed that most difficult of feats in surgery, the actual removal of an ovarian tumor, upon Mrs. Crawford, an heroic Kentucky woman, who lived thirty-two years after the operation, dying in her seventy-ninth year. This he did without a precedent in the whole history of surgery since the world began, without a guide in any of the books from the experience of others or of his own, without the use of anaesthetics, without assistance with whom to share the glory of successful achievement or the responsibility of failure. For years he had no imitators. Eight years elapsed before his modesty permitted him to report its successful accomplishment. The concurrent testimony of the profession is that in his origination of ovariectomy Dr. McDowell added forty thousand years to the sum of human life.

The last of these gentlemen to whom I wish to call your attention is Dr. John Estlin Cook, who came to Lexington from Virginia in 1827 to fill the chair of Theory and Practice of Medicine in Transylvania Medical College. Dr. Cook was a man of keen intellect and perceptions and quickly grasped any proposition that suggested itself to his alert mind. He was the first Great High Priest of calomel, and his exploitations in this line were remarkable. During the great cholera epidemic in 1833 he had a fine field for a test of his calomel theory. Dr. Cook was a man of extraordinary ability, having published several very able essays on "Autumnal Fevers." The theory that he advanced on this subject is quite well known to the profession. According to him all autumnal and malarial fevers were but variations of one diseased condition, and those fearful scourges cholera, yellow fever, dysentery, etc., were simply varied forms and conditions of congestion of the vena cava. His chief reliance was calomel, in the giving of which he was not guided by quantity but by the effect it produced. It is on record that he actually gave one pound of this mercurial in one day in tablespoonful doses to a patient suffering from cholera without fatal results.

THE INFAMY OF PATENT MEDICINES.*

By D. H. ERKILETIAN, M. D., Laytonsville, Ky.

There is an independent moral duty which, with an uncontrollable force, vitalizes the life of a medical practitioner who after long years of labor has prepared himself for that high

* Read before the Southern Kentucky Medical Association.

calling, healing human diseases, a position the value of which can only be realized by those who are born with it. This moral duty incurs on him an obligation to promote the dignity and honor of his science, to enrich the resources of his knowledge, and as he represents such an office as to impress a notable example to his community, he is charged with an obligation to be loyal to the laws of his conscience, his country and his God. This very duty constrains him to equip himself against the agility of prevailing evils. A notable example of this courage can be found in the person of Sir Thomas Brown, who with a sweeping statement challenges the position of an atheist physician: "There surely is a piece of Divinity in us, something that was before the elements and owes no homage to the sun."

Indeed less hope there is for a profession to reach the rank of nobility when such personalities cease to defend the rights of men as human beings, ranking them above the construction of an automatic machine. I believe in conservatism in solving the problems confronting us, "Peace be unto you," but that long time-honored word conservatism ceases to be a virtue when an evil in spite of all our efforts of reconciliation, so persistently endangers the standard of scientific medicine as to haul it to the level of empiricism and quackery.

The predominance of an evil in us can hardly be felt until we suffer the after effects of its pernicious venoms. Is the profession at large well aware of the fact that to-day the patent medicine system is a hindrance to our civilization? Have we ever thought of waking from our easy slumber and counting the cost of the dangers inflicted on us by the activities of patent or proprietary medicines (sold) protected by law? Taking into consideration the fact that this is a government of the people, by the people and for the people, I take the courage of asking you if a law is proved to be not remunerating but deliberately endangering the public interests, why should that law exist? Therefore, I will try to prove to you that patent medicine system—not a necessary evil as some claim, or a great blessing as others believe—is a pure and simple evil which, like a parasite, lives on the weaknesses of others.

The first question facing us will be: Has the patent medicine system been a helpmate to the medical profession in curing human diseases? It is better for us to judge the situation by the principle of merit and not be carried away by the current of prejudices. I adhere to the proposition that the present patent medicine system has never been a help-

mate to our profession and cannot possibly be one:

First, Because the symptoms, etiology and pathology of a disease vary slightly or vastly in different climates.

Second, Even under the same climate the same course of treatment cannot bestow the same benefit to all individuals alike.

Third, A course of treatment which succeeded in curing one disease is not practical to cure also those diseases whose etiology, pathology and symptomatology differ from the former.

I will use these three points either collectively or separately to defend my position.

The penetrating eye of a zealous scientific physician eagerly detects the minute details in symptomatology of a disease. I have treated diseases with scientific interests in both the North and in the South. I must confess my success in some and failure in others, but in all I have observed this important fact that I am compelled to change the course of treatment of the same disease in the South from the course I followed in the North. Furthermore, there have been times in which a disease manifested such symptoms in the South so different from those in the North that I had some delusion to think it not the same disease I had observed before.

The presence of two or three physicians could only convince me in regard to the diagnosis. I beg of you, my intelligent hearer, to know if this observation is true in the same country, how much more it must be true in different countries where various climates, habits and modes of living prevail. Indeed the masterly judgment of a scientific physician alone will be able to anchor the wrecked ship into a safe harbor.

Looking on the other side of the subject; Can the patent medicine system alone combat diseases, acute or chronic? Let us specify the medicines according to the diseases and patent them. Let the people be their own doctors. Let the physicians resign for a period of time, and what will be the result? There will be observed the epidemic of contagious diseases, a contemptably crippled human society. Innumerable diseases, the further development of which has been cut short through the genius and skill of the medical profession of to-day, will in the course of time cast hundreds and thousands into the pit of chronic invalidism. This result is inevitable, it cannot be helped. To-day you will see example of it in semi-civilized countries.

If there is introduced into the market a patent medicine, specific for a certain disease, it is impossible for us to change some of the ingredients in accordance with our observa-

tions in the same disease. On the other hand pharmacopeas have supplied us with ample drugs. It is for the physician to know the physiological actions of the drugs thus called for by the disease and to prescribe them as such in accordance with his observations, taking into consideration the climate, sex, physical habits, modes of living and adaptability of the patient. Our friends, the patent medicine inventors, do actually violate the laws of medical ethics in their claim of curing with the same course of treatment any individual under any conditions, and also in the claim of some who advocate the curability by their compositions of a group of diseases.

Here is an advertisement given out in one of the magazines: "A Wonderful Discovery—Kara-Kara, or Piper Methysticum." No one knows who discovered it. It calls the diseased, saying: "Come unto me and I will cure you if you are suffering with any of the following diseases, namely, Bright's disease, dropsical swellings, congestion of the kidney, dyspepsia, indigestion, catarrh of the respiratory tract, yellow jaundice, nephritis, diabetes mellitus, nervous debility, pain in the back, lumbago, sleeplessness, stone in the bladder, catarrh of the stomach, cancer of the stomach dysentery, colitis, nervousness, female irregularities of menses, rheumatism, impurities of blood. Write to Church Kidney Cure Company, 422 Fourth Avenue, New York."

Looking over the list of diseases that this wonder working remedy claims to cure, every one has its characteristic etiology, symptomatology, course and pathology. If, indeed, Kara-Kara cures diabetes mellitus, I would like to know which route it will take to regulate the irregularities of menses. If this dear old drug made an attack upon nervous debility, you want to know what process it will follow to start a campaign against yellow jaundice. If this one of the pearls of patent medicines succeeded in crushing a stone in the bladder, what kind of a chemical action will it have over the dropsical fluid? If this Kara-Kara, the fairest of ten thousand, never fails in bringing about a drainage system for the impure blood, the profession wants to learn to what variety of pains in the back it will prove wonderfully efficient, and how?

This is an age of reasoning. Is not Hartman Sanitarium aware of this fact? Indeed the practical impossibility of such claims is more obvious than the theoretical improbability. If this had been a picture of "the blind leading the blind" it would appeal to our sense of sympathy, but, sad to say, it is the treachery that is damaging the simple

blind. Therefore, I am safe in declaring that any medicine, either proprietary or under the cover of patent, whose formula is not given out, is maliciously injurious to the welfare of our Commonwealth, and the prevalence of any patent medicine whose formula is known to the public is a menace to the promotion of medical science.

Furthermore, this very evil is no less active, directly or indirectly, in a campaign to degrade the well established reputation of the old time-honored scientific medicine. Trace up the after effects of these innumerable misrepresentations put forth by the patentees, and you will be eventually convinced that the patent medicine traffic is one of the chief causes that severed the home from its family physician.

On the other hand, it is true that no conscientious, honest, God-fearing and scientific physician will ever undertake to introduce a patent medicine or support its cause. A physician prominently respected by his community and who humiliates himself to prescribe a patent medicine, is no more worthy to be in the rank and file of honor than the king of Morocco is worthy to be in the presidential chair of the United States. From that time on until he repents and resolves to sin no more, he is a stranger to the profession. Let that scientific pride, which is in us, predominate our humiliation for the rest of our active life. Let each of us resolve to be his own boss. Remember the fact that the carelessness of a physician in holding his own, contributes liberally to strengthen the fortifications of patent inventors. I ask you in the name of our dear science to keep away and never indulge again.

In the realm of the practice of medicine there exists no evil which needs to be more seriously considered by the advocates of clean, scientific medicine than the irrevocable domain of the patent medicine system. Listen to the unanimous cry of the profession: Chase the quacks out and restrict the laws of practice! But it will not be an exaggeration if I humbly draw your attention to the fact that more injury has been inflicted to our homes, to our finances and to our profession through the activities of patent and proprietary medicines than through the whole quackery and unlawful practice combined. Just think for a moment how many various forces are endeavoring to ruin what the regular school has built, with a purpose to master the man.

The vast army of pill manufacturing establishments of the school of homeopathy. Virulent yet reasonably convincing claims of patent medicine inventors. The boastful phy-

sician's attitude whose gorgeous photograph attached to his advertisement even tickles the fancy of the fair sex. The uncalled-for prejudices of a physician to his neighbor colleague. The giant mesmerizers, magnetic healers, Christian Scientists, mind curers, nypnotizing magicians. The combined attack of all similar charlatanisms is weakening the fortifications. I must emphasize the fact that, with the present system in power, the position of the regular school is getting graver every day.

If we admit that medicine is a scientific examination of the viscera of the body to investigate the mutual relations of its organs, their chemical compositions, actions and predominant laws, to observe the etiology and symptoms of each disease and through the assistance of such remedies turn back the disease from the system on the same course which it developed, then who is the friend indeed to the suffering sick but the scientific physician?

We do not wish to accumulate fortune by our art. Let fortune smile at those who smile at it. Statistics show that 200,000 physicians in the United States have an income of only \$150,000,000, an average to the physician of \$750.00 a year—a sum too poor to feed him and his family. But he lives to learn and learns to immortalize his name through his self-sacrificing deeds. Like a good Samaritan, he is recompensed only through the merit of honor. His laboratory in which he indulges in chemical and microscopical examinations, is the palace of his heart. To him a surgical room has its unparalleled impressions in its solitude, and a private library in his Pantheon of advancement. But sad to relate, instead of a crown of honor he is many a time adorned with a crown of thorns.

It is plain that our present laws are defending the bloody-jawed wolf of patent traffic rather than the tender lambs of our homes. It will have to go, it must go, if the medical science is to live, and it will live whenever the battle for the destruction of the patent medicine traffic is vigorously entered upon both by the profession and the commonwealth at large.

Look at our drug stores. To-day's drug store is perverted from its path of duty. In fact in essentials it assimilates the stationer. The annual report of the Committee of Adulteration and Substitution of the New York State Board of Health, clearly demonstrates the fact that thirty-five per cent. of the druggists of New York City alone are violators of the law. They have no time. Indeed they have time to carry out the plans laid by patent medicine factories. They have time

for decorating their stores with monuments of patent medicine factories. They have time to convince a customer how useful a certain patent medicine is. They are making money through some other channels; what do they care about the pharmaceutical preparations?

The *Kentucky Medical Journal* in the August issue publishes an article in which the writer, a druggist, says that "One of the reasons why a druggist is obliged to sell patent medicines is because physicians dispense their own drugs," or he means to say the doctors do not give a druggist business enough to meet the ends. This is a very poor argument. It cannot be logical to think that, because the doctor is doing what is right the pharmacist is justified in doing what is wrong. If they promise to wash their hands from substituting and upholding the cause of the patent medicine system, we will promise to keep them busy. There is only one way to answer such an argument. If a druggist feels that he is not conducting his business with a pure conscience and is obliged to be a tool in the hands of thieves, it is advisable for him to quit the business. There is a great demand for hands in our cornfields.

A journal published among the druggists, editorially defies the position of the druggist in selling patent or proprietary medicines. This editor bases his arguments on the proposition that even some physicians are not competent to judge the physiological action of the drugs they prescribe. I agree with him—incompetency is another evil which scientific medicine is combating,—but it cannot be logically right that because a physician does what is wrong a pharmacist is justified in doing what is wrong. The fact is that the average druggist of to-day presents some symptoms of degeneracy. Are they not smart enough to fool the profession and the public by playing the tune of Herod on the violin of John the Baptist? If every county medical society resolves to patronize only such drug stores which strictly abide by the laws of medical ethics, or if every society would have its own drug store, we would soon succeed in cleaning out some of these dens of filth.

There are only two ways by which we can successfully attack the patent medicine traffic. One of them is to teach the community the danger underlying the patent medicine system. This must be carried on, not in a dreamy, standstill or sluggish manner, but the fight must go on with the full fervor of a campaign. Let stalwart medical lecturers throughout the country make this the prime

issue of the hour. We have compromised enough already rather than fight. Indeed, we are at present well organized and in a position to accomplish results.

In addition the creation of a National Board of Medical Examiners will aid us in our campaign. If the law prohibits a drug to be on the pages of the pharmacopea unless it has been tested, why not pass a law to prohibit every patent or proprietary medicine from being sold until it is investigated as to its merits? This is a problem the solution of which depends entirely upon the efforts of medical men. Some progress has certainly been made and is still going on, towards the restriction of the evil. Are we not justified in waging war because our interests have been endangered? Is not the fundamental issue of every bloody war to keep the financial balance of nations in equilibrium? Who will teach the community the danger of waste in adhering to the unscientific claims of patent medicines? Who will appeal to the State Department to restrict the patent medicine system under the direct supervision of a National Board of Medical Examiners? An organized scientific medical profession.

We seek nothing but justice in our combat against this evil. We earnestly wish for the time when a family physician, having the full confidence and respect of the members of a home, with scientific interests takes care of the sick. How long shall we rock (so easily) in the cradle of so-called conservatism, while the appalling figures of shame, robbery and deceit wrought by this evil, confront us on every hand? Each individual physician owes his personal help to this cause but there is strength in union. Shakespeare has well said:

"This above all, to thine own self be true,
And it must follow as the night the day
Thou canst not then be false to any man."

DIAGNOSIS AND TREATMENT OF GALL STONES.*

By Benj. Merrill Ricketts, Ph. M. D., Cincinnati, O.

The time allotted this evening for the discussion of this most important subject will permit only of a brief outline. The anatomy and physiology involved are so generally understood that their consideration here would be superfluous, but the anomalies of the biliary tract, which, if present, constitute a very important factor in those cases requiring surgical treatment, have not been given the consideration that is their due. Any one or all of the biliary ducts, hepatic, cystic or com-

mon, may be unusually long or short, large or small, single or multiple, and the entrance of the common duct into the duodenum may be abnormal in position or character. The gall-bladder itself may vary in size, position or thickness, one or all, or it may be septinated to form two or more cavities, varying in size and shape. It can, therefore, be readily understood that results may be more or less influenced by one or all of these variations, diverticular in character. Concretions vary greatly in shape, size and composition, and are found most frequently in the female between the ages of fifty and seventy years. Like cholecistitis they are probably caused by the presence of bacteria, foreign bodies, or intestinal parasites.

Symptoms and diagnosis are of the greatest importance, indicating as they do, the form of treatment to be followed. Pain may be localized or referred, but it is not a constant symptom either in the presence or absence of concretions. Where localized, it is in the neighborhood of the biliary tract. It may be mild or severe, constant or paroxysmal. Constant when the obstruction is more or less complete in the hepatic or common ducts; paroxysmal when the obstruction varies in degree. The periodicity of such pain varies materially. Referred pain is usually present in the region of the scapula, when the cystic duct is obstructed. It may be migratory. Pain is also present when the gall-bladder is distended, as the result of the obstruction of the cystic duct. Colic is usually due to concretions impacted in the common duct. It is sudden and is usually the first warning of an approaching attack. The severity is proportionate to the degree of distention and it is associated, as a rule, with jaundice, clay-colored stools and localized tenderness. Rigidity of abdominal muscles is usually confined to the right side but it may be present on both sides, especially above the umbilical line.

Tumefaction may or may not be present, and when present may be due to a distended gall-bladder or duodenum, pericystic abscess, hepatic abscess or hypertrophy.

Clay-colored stools are only present where the hepatic or common duct is more or less completely occluded. The color of the stool is not changed in cystic obstruction. The bowels may be constipated, or there may be diarrhoea.

Tenderness on pressure over the biliary tract is always associated with pain and it may radiate from the most sensitive point over the entire abdomen, especially the right side. Finger pressure over the posterior surface of the liver will illicit pain when concretions are present. Tenderness to digital

* Read before the Bourbon County Medical Society, April 18, 1905.

pressure upwards under the lower lobe of the liver at the time of inspiration also indicates the presence of concretions.

Jaundice occurs in only about ten to twenty-five per cent of cases in which concretions are present. It indicates obstruction of the common or hepatic duct, due to concretions or infection. It may also be due to pressure exerted upon the biliary tract by neoplasms in the surrounding tissues or concretions within the gall-bladder.

Jaundice is seldom associated with concretions within the gall-bladder or cystic duct unless they cause pressure on the common duct. The discoloration of the skin comes gradually and is greater during the latter part of the day. The conjunctiva is always discolored when there is jaundice. If blood from the ear be placed in a tube for a few hours the color will show a yellow tinge. The urine may contain more or less bile which can be detected by the various tests. Nausea and vomiting are the most common manifestations. They are usually reflex in character and for this reason the stomach is oftenest suspected to be the seat of the trouble. These manifestations are usually periodical, more or less severe, and during the time of obstruction rather constant. The patient becomes relaxed; the obstruction is therefore relieved and vomiting ceases for a time, at least.

Fever is bacterial in origin and is usually but not always associated with concretions. When infection is present the fever rises suddenly to its maximum and then declines just as rapidly. The maximum temperature may be reached at the onset of the attack, fall to normal within a few hours and continue normal, but in cases of concretions or infections, alone or combined, the temperature is usually very fluctuating.

Differential diagnosis is with appendicitis, diseases of the ovary, tube, kidney, ureter, and pancreas, with duodenal or gastric ulcer. An aneurysm of the hepatic artery should also be considered as well as spontaneous and traumatic rupture of the gall-bladder.

Treatment is purely surgical, there being no known medicine that will dissolve biliary concretions within the living body or prevent their formation. Surgical treatment is radical and safe, the mortality being less than five per cent. Cholecystotomy is the operation of choice, although in a few selected cases cholecystectomy is preferred. Suturing the gall-bladder to the abdominal wall is not a difficult operation unless the adhesions about the gall-bladder are dense. Drainage may, in this way, be accomplished in all cases of concretions and infection of the biliary

tract, and also in those cases in which concretions have escaped into the intestinal tract leaving an inflated or thickened gall-bladder.

SPECIAL ARTICLE ON THE OCCURRENCE OF SPIROCHAETA PALLIDA, SCHAUDINN, IN SYPHILIS.

By Simon Flexner, M. D., and Hideyo Noguchi, M. D., of New York.

In the last few weeks several papers have appeared in the German and French medical literature, dealing with the spirochaeta which Schaudinn and Hoffman described as occurring in recent syphilitic lesions. The first paper by Schaudinn and Hoffman appeared almost simultaneously in the *Arbeiten aus dem Kaiserlichen Gesundheitsamte* and the *Deutsche Medicinische Wochenschrift*. The paper in the former publication was illustrated with two microphotographs, showing the form of the organism. These papers were quickly followed by two communications from Metchnikoff's laboratory in the Pasteur Institute, confirming and accepting the discovery, and drawing attention to the interesting fact that Bordet and Genou had observed the same microorganism in a syphilitic chancre some three years before. However, as they failed to discover it in some syphilitic lesions which they subsequently studied, they abandoned any future search for it.

Hoffman and Schaudinn's first publication dealt with a study of primary chancres, the enlarged glands of the groin attending these lesions and flat condylomata in syphilitic patients. The study consisted in the examination of fresh specimens obtained from the surface and interior of the primary lesions and the interior of lymph glands and condylomata, and stained specimens from the same sources. Certain control examinations were also made of non-syphilitic lesions of the genitals and of mixed lesions of these parts. The results were quite uniform and suggestive. From the cases of simple syphilitic infection the lymph glands, condylomata and interior of chancres, showed a variable number of spiral micro-organisms of great tenuity for which they propose tentatively the name *Spirochaeta Pallida*, while the non-specific lesions showed a second spiral micro-organism, for which they also propose the name of *Spirochaeta refringens*. The latter organism had, doubtless, been seen and described before by several observers, notably by Berdal and Bataille, Csillag and Roma. Schaudinn and Hoffman did not find the first

spirachoeta in non-syphilitic lesions, nor did they find the second in the interior of the syphilitic lesions studied by them. From the study of Schaudinn and Hoffman it is not difficult to explain the failure of previous investigators to perceive *Spirochaeta pallida* and in especial Bordet and Gengou's failure to obtain it in all of the several cases studied by them. The organism is difficult to see in the fresh state, and it is also highly refractory to staining so that special methods are required to demonstrate it in fixed preparations. The description of the organism is as follows: In the length the spirochaeta varies from 4 to 10 m, the average being 7 m; in width the variation is from unmeasurable thinness to 1-2 m. The number of bends is from 3 to 12. The organism agrees in motility with the spirochaetae rather than the spirilla; there are three characteristic movements: rotation on the long axis, forward and backward motion and bending of the entire body. There are indications of an undulating membrane but none of flagella. The poles end in sharp points. No further details of structure have been made out thus far.

For the purpose of the study of the fresh material dilution with salt solution of the expressed juices of primary lesions, or the fluid drawn by aspiration from the lymph glands, is permissible. Prepared in this way the spirochaetae were still actively motile, according to Schaudinn and Hoffman, after six hours.

The staining is accomplished with difficulty and the best results thus far have been obtained with Giemsa's eosin solution and azure. Schaudinn and Hoffman recommend the following formula:

Twelve parts of Giemsa's eosin solution (2.5 C. C. 1 per cent eosin, 500 c. c. water).

Three parts Azur No. 1 (1,000 solution in water).

Three parts Azur No. 11 (0.8: 1,000 solution in water).

The solution is to be freshly prepared. The films, which should be thinly spread, are dried in the air and then hardened in absolute alcohol for ten minutes, after which they are immersed in the stain from sixteen to twenty-four hours. They are to be washed in water, dried in the air and examined in cedar oil.

Our study has thus far comprised a small number of recent cases of syphilis and two cases of non-syphilitic ulcer of the penis. We are indebted for the material studied to Dr. V. C. Pendersen, to whom we wish to express our obligations. The cases are as follows:

CASE I. Male, twenty years old. Luetic infection December, 1904. No regular treat-

ment. He presented mucous patches of the tonsils and soft palate, and a fading rash of the trunk. Between the buttocks, flat condylomata. A condyloma was excised. Smears were made and stained in various anilins and with eosin-azur. Fresh preparations in salt solution were also studied. In the latter no characteristic organisms were found. The stain preparations were positive, showing a variable number of thin, lightly-stained spiral organisms identified as the species described by Schaudinn and Hoffman. The positive results were obtained with aniline-water-gentian violet and eosin-azur, the latter having given the most satisfactory results. The films varied greatly, even with the same method of preparation. In some the number of stained spirals was very small, while in others the number was large, a single field showing as many as five. In still other cover glasses no organism could be discovered. The spirals were long for the most part and showed from six to twelve bends, or curves.

CASE II. Male, aged thirty-four years. Burrowing non-syphilitic ulcer of the penis. Smears from the surface only could be obtained and they were negative for spiral micro-organisms.

CASE III. Male, aged twenty-three years. Mucous patches in mouth. Healed scar on penis. Enlargement and induration of glands of the groin. A small quantity of fluid, consisting of blood and lymph cells aspirated from the enlarged glands. Fresh preparations negative; smears stained in eosin-azur showed a very few delicate, faintly-staining spiral organisms.

CASE IV. Male, aged eighteen years. Infection in January. For several weeks active antisyphilitic treatment. Primary lesion on glans penis; marked swelling of the glands of the groin. Part of primary lesion was excised and fluid was aspirated from an enlarged gland. In the fresh fluid of the gland diluted in sterile salt solution several small and a single larger motile spiral organism were seen. None of the stained preparations from the primary lesion or the gland juice showed spirochaetae.

CASE V. Colored male, aged twenty years. No definite history of time of infection. Presented himself with phimosis and balanitis. After incision of the prepuce three separate elevated, indurated lesions regarded as chancres appear. Moderate swelling of the glands of the groin. One of the lesions excised. Smears and fresh preparations were made from the base of the lesion. Fresh preparations negative. The smears stained in eosin-azur showed a moderate number of

delicate spirals, agreeing with the description given by Schaudinn and Hoffman. They varied in number in different cover glasses, and in some could not be found. The curves numbered from eight to twelve.

CASE VI. Male, aged twenty-three years. Non-syphilitic ulcer of penis; duration twelve days. Films stained in eosin-azur were negative for spirochaetae.

From this small series of cases it will be seen that of the four cases of syphilitic lesions the spiral organisms were obtained in stained preparations three times, while in the two cases of non-syphilitic lesions studied they could not be found. An anomaly exists in respect to Case IV, in which the spirals were missed in stained preparations, while they appeared to be present in the fresh state. No explanation can now be offered for this occurrence.

Schaudinn and Hoffman express themselves very guardedly regarding the significance of the spirochaeta. They point out its presence in the typical lesions of the disease and its absence in the other forms of venereal disease studied. Important confirmatory contributions have come from Metchnikoff and Roux, who have demonstrated the same organism in the lesions of acquired syphilis in man and in experimental syphilis in the monkey and ape. In the last animals the material for study was obtained from the primary lesions produced by inoculation before ulceration had taken place. Additional confirmatory evidence of importance as regards the distribution of the spirochaeta is supplied by the observations of Levaditi and Buschke and Fischer upon congenital syphilis. These writers found that organism in the pemphigus bullae and papules of the skin, and, in cases coming to autopsy, in films from the spleen and liver. Schaudinn reports that he also has obtained it from splenic juice removed by aspiration from a syphilitic patient.

Metchnikoff and Roux draw attention to the irregularity of distribution of the organism as indicated by the variation in numbers upon the cover slips. We have observed the same irregularity, but we are not yet prepared to state that the difference may not be due to the imperfect technic in staining. Metchnikoff and Roux and Levaditi prefer a more rapid way of staining the films, namely that of Marino, which, up to the present, we have used but little. Should it serve as good a purpose as the slower eosin-azur, and should future study confirm the etiological position of the spirochaeta, a rapid and useful, and perhaps even a specific method of diagnosis would be afforded. Since the organism exists in the primary lesions and the glands of

the groin in a demonstrative form, and since fluid from each can be obtained easily, with the infliction of little pain to the patient, and without in any way prejudicing the progress of his disease, we may look for a general study of the fluids obtained from these sources in suspicious and established forms of venereal disease with reference both to the occurrence and the specificity of *Spirochaeta pallida*.—The Journal A. M. A.

TYPHOID FEVER.

By L. B. Cook. M. D., Stanford, Ky.

Typhoid fever has so often been discussed in medical societies and journals, that I shall find it a difficult task to entertain this society; however its frequency, geographical distribution, and mortality are such as to claim the attention and interest of each physician present. I shall not weary you in detailing the symptoms or burden you with a long paper, but shall mention the main points with a view of bringing out a full discussion.

Typhoid has a universal distribution occurring in every country with an average mortality of 10 per cent. It is only of recent years the etiology became known; since then rapid advancement has been made in the prophylactic and general management of this disease. Many lives were lost annually for want of this knowledge.

The typhoid germ is a vegetable micro-organism short, actively motile, non-spore-forming, in length about half the diameter of a red blood corpuscle. Under the microscope they are never at rest until they meet in combat the blood of an immune typhoid subject, when they become paralyzed, and clump together in lifeless forms. Even this microscopical vision brings relief to the physician as he watches the bacilli slowly but steadily become less active till all is rest, and nothing fills the field but clumps of dead bacilli. The blood generally retains this immunizing power through life, and the action brought about upon the human organism by the typhoid bacillus is typhoid immunity. This is the way life protects itself from the continuous attacks of infectious diseases; it is nature's remedy and is called natural immunity. Immunity may also be artificially brought about, by inoculation, or by a serum. Typhoid immunity is produced by receiving into the blood system a living micro-organism and within a very short time there will be a febrile reaction brought about by the activities of these micro-organisms.

The knowledge of immunity and infection led to the injection of filtered products of different bacteria into susceptible animals, and

they were made immune like those in which the living organisms were used, and not only were they rendered immune, but the serum of the animal was so altered that it was capable of rendering other animals immune.

Immunity may therefore be obtained in three ways. (1) by direct inoculation of a living germ, as in typhoid fever, (2) by introducing a toxin the germ product of bacteria, and (3) by the serum of an immune animal, as in diphtheria, etc. Of these ways of inducing immunity the living germ and toxin imitate nature, and requires time, while in serum immunity, the animal is protected at once. There is (at least) a partial immunity of which our medical authors do not write, which should be classed as inherited immunity. The civilized races among whom many infectious diseases raged with virulence in remote centuries have now inherited partial immunity with which the savage and inhabitants of new countries are not endowed, and among whom there is a great increase of mortality in the infectious diseases. Even among them chicken pox has a mortality. Immunity bears a specific relation to bacteria, toxin, and serum; that is each virus or germ only protects against its own poison; and, while I hope not to be tedious on the subject of immunity I shall mention the results of preventive inoculation of typhoid germs. A. E. Wright and Netly, inoculated 511 persons with cultures of typhoid bacilli, and only 7 developed the disease and all but one were supposed to have been exposed before or immediately after inoculation. At same time 29 cases developed among the uninoculated. Also preventive inoculation was given to several thousand British troops sent to the Anglo-Boer war with the effect of reducing number of typhoid cases.

It is conceded by the profession that the typical typhoid is an Eberthian infection, though I believe the irregular or paratyphoid is produced by a different germ, though of the Colon family. These cases will not give the Widal reaction and the cases reported occasionally that do not react to the Widal test are evidently bastard typhoids. The typhoid bacillus has the faculty of withstanding repeated freezings and thawings. It has been found to live ten months in top soil, 3 months in undisinfected stools, 85 days upon articles of clothing, 1 year in sealed bouillon, 497 days in tap water at room temperature, and then multiply and become malignant. In fact, it is now believed they will live longer in pure than in dirty water.

This germ cannot resist direct sunlight, nor diffused daylight long; the sun's rays penetrate water and kill germs several feet deep.

It is our most powerful and useful disinfectant. Just how many typhoid germs it takes to produce the disease is unknown, though it is claimed under favorable conditions, one will be sufficient. It takes more than a germ to make disease; no doubt every one has been exposed to the typhoid, tubercular, and diphtheritic bacillus, yet many have escaped typhoid fever, tuberculosis, and diphtheria.

Man has in the gastric juice and intestinal secretions antiseptics of some value, and should the germs escape their action, the blood, the corpuscles, the cells, and the alexin stand guard, and in fact the whole organism through years of schooling in immunity has done much to protect us from infection. Old age is almost exempt from typhoid fever and many infections, perhaps from previous aborted attempts. The many ephemeral fevers may often be only aborted forms to protect from the more malignant. The typhoid germ is not always virulent even in the intestines; man may carry them as saprophytes to become pathologic by overwork, fatigue, or by dietetic or hygienic errors.

"Drs. Rulenger & Schuler demonstrated the typhoid bacillus in the water and the soil, far from epidemic foci; and also of greater importance in the alimentary tract of man free from typhoid fever. These observations strengthen the idea that this bacillus has a cycle of existence outside of man."

The propagation of typhoid fever is generally by contaminated water, though there are many ways by which the germ may be carried. Flies feeding upon contaminated food have been caught in possession of germs on their feet and in their intestines, and in their tracks on food where they walked. Another source of infection is the railroads where patients recovering carry the typhoid germ in their urine and feces to be deposited along these ways. These germs come in contact with the hands of section men and often infect them. It is often called a waterborn disease, but it is also a milk, butter, railroad, fly, wind, old clothes, bed clothes, and many ways born. The etiology and ways of dissemination being known, the prophylactic treatment is easy and important. One great mistake is the failure to recognize the disease in the irregular types. It has been my opportunity recently to know of cases where lives might have been saved had the disease been correctly diagnosed, my admonition is, don't wait for typical symptoms but give the patient the benefit of the doubt, and put him in bed. Malaria is a disease from which a differential diagnosis can be easily made. If we do not find typhoid until the patient is saturated with toxin and the diagnosis written in

every lineament of the face, the golden opportunity is past. I make it an invariable rule when called to see a case of fever, to examine the blood for the plasmodium malaria, and if not present I suspect an intestinal disturbance or sepsis. It is by these blood examinations, and withholding quinine, that the many cases of malaria, I've had, have diminished so that for the present year I have had only one case.

The germ often resides for many months after recovery in the gall-bladder, gall-ducts, and urine, etc. The complications are many, the most frequent are pneumonia, and abscesses; the sequela are likewise frequent but not more so than we would expect, from the course and complications.

The diagnosis is generally easy, if we bear in mind the times of appearance and duration of the prominent symptoms, viz.: "the dichrotic pulse on the 3rd day to the 14th, rose spots from 6th day to the 12th, the diarrhoea if present by the brownish stools from 2nd to 12th day to be followed by pea-soup stools, splenic enlargement from end of first week to convalescence."—(Butler). In a word the cardinal symptoms are the temperature curve, rose spots, enlarged spleen, epistaxis, and dry tongue. The "Diaz reaction" and Widal test should not be neglected. It should also be remembered that "as the different organs may bear the brunt of the infection so may the manifestations of the disease be extremely variable." Herrick has said that typhoid fever is not only an imitator of diseases, but many diseases imitate typhoid fever.

Among the diseases that mimic typhoid, I would especially mention acute military tuberculosis, peritonitis, and ulcerative endocarditis.

An unfavorable prognosis is made in extreme hyperpyrexia, continued tympanites, profound toxemia, and a progressively decreasing blood pressure below 100 mm. Hg. The sphygmomanometer is of special importance as a guide to treatment and in differentiation perforation from internal hemorrhage, and also necessary from a prognostic standpoint. It should be used regularly like the thermometer to learn the pressure curve, as no special value can be had by one examination except in internal hemorrhage or perforation. A large percent die of toxemia, the robust in my experience die as often as the delicate. Children bear the disease remarkably well, but do not give a too favorable prognosis in the apparently mild cases; each case is full of surprises, and may not show symptoms of approaching trouble. Well do I remember a family in my early practice that

was stricken with this disease. All recovered but the mother, who was very large and fleshy; she continued sick for a long time, the lungs became oedematous, and while attempting to assume the upright position she suddenly expired from a dilated heart. And now lest I worry you I will give the treatment.

It is unnecessary to say there is no specific in this disease, yet while this is true I know of no disease that rewards us with greater results than the timely administration of proper remedies, hygienic, dietetic, and medical. Recovery depends largely upon the minute details. However there is a general treatment that is applicable to all; this embodies a suitable room with temperature of 68, and a trained nurse that can take the temperature every three hours, in the afternoon and evening. The bed should be drawn out into the room so that patient may be accessible from all sides, the sheet should be taut to prevent bed sores; visitors should be excluded; give patient at least one quart of water each day as this helps remove wastes and acts beneficially upon the kidneys. The mouth should receive special attention by washing with listerine. Whether the patient should be allowed to get up at stool, I think often depends upon the stage of the disease and upon the individual case; in early part of sickness I do not believe any harm will follow the upright position and many patients cannot empty bowels over bedpan. See that the bowels move each day, if necessary by enema of soapsuds and turpentine, and if too active, control with bismuth and opium. The patient should wear a gown open the entire length either in front or back.

The reduction of fever is necessary and it is best accomplished by hydrotherapy in some form. There are many drugs which will reduce the fever though at the expense of the patient; these remedies as a rule are too depressing, and if given at all should be given with caution. The beneficial effect of hydrotherapy is not due entirely to the reduction of temperature. Its mechanism is more complex; it stimulates the nervous system and increases blood pressure by which the patient is better enabled to stand the continuous presence of the toxemia.

I do not use the tub treatment because in the first place it is impracticable in country practice, and secondly, it takes an intelligent nurse to carry it out successfully. To use cold tub baths with a green nurse I believe would increase our mortality. I will also put in a plea to exempt the little ones, those past middle life, and also all who have valvular lesions, chronic myocarditis, arteriosclerosis,

bronchitis, intestinal hemorrhage, and certain nervous persons. Instead of the tub bath, the temperature may be reduced by sponging for half an hour with alcohol and cold water equal parts. The alcohol favors rapid evaporation and keeps the skin healthy and prevents bed sores. If this does not reduce temperature the cold pack may be resorted to: another remedy I occasionally use is the local application of gualcol and glycerine, equal parts, 30 drops applied over the abdomen and covered with oil-silk. The diatetic and hygienic treatment should be precedent to all other remedies. It is hardly possible for a patient to recover who has been neglected in this. Liquid diet should be insisted on from the beginning and continued until convalescence is fully established.

I do not rely upon soups for nourishment as meat soups, only contain aromatics with very little nourishment. Patients may have buttermilk, and cream, which are nutritious. If you fear milk will curd in intestines then peptonize, and the acid of stomach will not then curd it. The whites of 1-3 dozen eggs daily will materially support the patient. If milk disagrees, the farinaceous gruels of barley, rice, or malted milk, or the infant foods may be substituted.

Acetozone has acted well with me as an intestinal antiseptic; it prevents tympanites, red dry tongue, and intestinal fermentation, the three symptoms most dreaded. Stimulants toward the close of the disease are called for. When the first sound of the heart is weak and blood pressure is low as shown by the "sphygmeter," stimulants should be given. It is useless to say before this society that alcohol is not a cardiac or vascular stimulant, what ever virtue it has must be as a food, or for better distribution of circulation. Nitroglycerine in collapse will only increase the cardio-vascular paralysis and endanger the life of the patient. Strychnine, digitalis, hypodermically in almost toxic doses 1-10 gr., each, preferably combined, have intrinsic value as stimulants; these large doses, however, are only indicated in threatened collapse. To this class belong camphor, and caffeine, digitalin, adrenalin, atropine and ergotin. All complications are attended by fall of blood pressure, except pneumonia and peritonitis, which give sharp increase.

I will not close this paper without calling your attention to the treatment of intestinal hemorrhage. The management of hemorrhage from any organ in any disease must always be approached from a physiological standpoint. We should not forget that the blood vessels in different regions of the body are variously influenced by vaso-motor con-

strictors and dilators. We know the brain arteries are sensitive to dilators but not to constrictors; the abdominal splanchnic system is influenced by both, while lungs and skeletal vessels are not much influenced. Nature's remedy in checking hemorrhage is by forming a clot, and we should always be chary in giving drugs that raise blood pressure lest we wash away the clot. The drugs that act most effectively as constrictors are, strychnine, digitalin, adrenalin, and atropine; the dilators are the nitrates and iodides. The latter, however, are too slow for hemorrhage. When dealing with a concealed hemorrhage that cannot be reached by local application, we must depend upon either constrictors or dilators, the choice always depending upon the region of body bleeding. If it is from the womb, as ergot has special affinity for uterine tissue, it can be successfully given, if from intestines, strychnine, digitalin, and atropin, as the intestinal vessels are readily constricted by them. The vegetable acids, gallic and tonic, are useless as are the lead salts. Turpentine is highly recommended by clinicians. Morphine is good in quieting patient and should be given. Gelatin, which should not be cooked, one-half ounce internally every hour, is one of our best remedies; also crystallized calcium chloride, 90 to 120 grains in 24 hours. If I were to treat a typhoid hemorrhage, I would give several remedies and apply ice to abdomen. I would give morphine to quiet patient and immobilize the intestines, ergotine, strychnine or digitalin hypodermically, as constrictors, calcium chloride and gelatine to increase the coagulability of the blood. As we have no specific hemastatic, and are dealing with a formidable complication with a mortality of 30 per cent. with no certain means of knowing when the hemorrhage will stop, we should play a full hand in the hope that one might be fruitful in checking the hemorrhage.

With this I close, mindful of the fact that I have only meagerly outlined the subject of typhoid fever, which, like the poor, has neither beginning of days nor end of life but continues with a mortality that has baffled the combined skill of the ages.

CASE OF HYDRO-CEPHALUS COMPLICATED WITH SPINA BIFIDA.

By EDW. T. BRUCE, M. D., Louisville, Ky.

Child was born after a tedious labor. The bag of water was ruptured before the os was fully dilated and mechanical dialation was resorted to, accomplishing the same with fingers and allowing the head to assist. The presentation was that of a L. O. A. which was

determined with some difficulty owing to the immense amount of fluid which distended the head and the wideness of the sutures. The fontanells were finally recognized between pains, by making pressure upon the tumor-like mass—that presented itself at the os. The diameters of the head were so large that one hand was kept in the vagina and during pains the cervix was pushed and eased back over the presenting parts and in this way the head was allowed to pass into the floor of the pelvis. The perineum was guarded in a like manner and the head was born with only a slight median tear.

The child when born was asphyxiated owing to the prolonged labor and artificial respiration was resorted to. The circumference of the head (Occipital-frontal) measured 20 1-2 inches. The parietal accipital and frontal bones standing up nearly perpendicular, the right parietal bone being fractured in several places.

A Spina bifida was present in the lower dorsal region, which had ruptured, probably during labor, leaving a Sinus leading into the spinal column, two and one-half inches in length—through which the cerebro spinal fluid drained—this was dressed with a gauze dressing. Temperature of child was taken and found to be 95 1-5 degrees.

On the following day it was noticed that the size of the head had diminished and the dressing that had been placed on the back was found to be saturated with the cerebro spinal fluid—this drainage continued until the third day, when the head was found to measure 14 inches (Occipital frontal circumference). The bones were lapping each other considerably. A facial paralysis existed. From the start the child was fed by means of a medicine dropper and inunctions of oil. The condition of the child remained the same until the tenth day when it died, having convulsions at intervals of an hour and running a temperature of 95 degrees from the time of birth. The child died in a convulsion from inanition.

Maternal history. Thirty-two years of age, tuberculosis, one child living, age 6, tubercular knee. Six abortions, at second month.

Paternal history. Thirty-five years of age, laborer; tuberculosis and epilepsy.

PROGRESS IN GENERAL SURGERY.

* Reported by M. A. GANTT, M. D., Louisville, Ky.

The relation of gonorrhoeal rheumatism to seminal vesiculitis, and its cure by seminal vesiculotomy—Drainage in diffuse septic

peritonitis—Case of suture of the spinal cord, following gunshot injury involving severance of the structure—Surgical treatment of intraspinal tumors—Report of a case of imperforate rectum with absence of the anus.

* * *

THE RELATION OF GONORRHOEAL RHEUMATISM TO SEMINAL VESICULITIS, AND ITS CURE BY SEMINAL VESICULOTOMY.

Eugene Fuller reports in June issue of the *Annals of Surgery* four cases of gonorrhoeal rheumatism cured by seminal vesiculotomy. In December 1904 the idea occurred to the author to cure gonorrhoeal rheumatism by an operative method, believing that the infection causing this disease entered from a special focus or from the general mucus membrane, and that that focus in the male is located in the seminal vesicle or vesicles. Fifteen cases came under the author's observation and four submitted to operation, and upon draining the seminal vesicles, absorption was immediately checked and a resolution of the genital lesion has promptly followed, and the active symptoms of the gonorrhoeal rheumatism promptly subsided. There is one point to be emphasized in this connection, and that is that after the wound has healed a urethral discharge is quite apt to appear. If such is the case, the discharge should be left absolutely alone and it will disappear in a few weeks. All four of these cases were discharged as cured.

* * *

DRAINAGE IN DIFFUSE SEPTIC PERITONITIS.

In the July issue of the *Annals of Surgery*, Van Buren Knott reports nineteen operated cases of diffuse septic peritonitis with seventeen recoveries and two deaths. Ten of the cases were of appendicular origin, one following perforation of a duodenal ulcer, one due to rupture of gall-bladder, two to ruptured pus-tubes, two following suppurating ovarian cysts; and two were cases of post-operative peritonitis, one following an abdominal hysterectomy, the other following an appendicectomy. Of the fatal cases one was of appendicular origin, and the other due to rupture of a large suppurating ovarian cyst. All the cases included in this list are diffuse, none of a local type whatever. Ample incision should be made in all these cases and in the median line, the better to facilitate thorough cleansing of the cavity. Should the upper abdominal viscera be focus of infection, the incision will, of course, be made above the umbilicus.

The author says: "Since adopting the technique above described the mortality of this disease has in my hands been reduced

* Owing to the illness of Dr. Irvin Abell, the report on the "Progress of Surgery" has been kindly made for this issue by M. A. Gantt, M. D., of Louisville, to whom editorial thanks are due.

from 90 per cent. to 11 per cent. approximately."

The results following any method of treatment of diffuse septic peritonitis will be more or less dependent upon several factors, among which may be mentioned the nature of the infection, the resistance of the patient, and the length of the time elapsing between the onset of the peritonitis and the operation. The nature of the disease will ever cause it to be classed among the most formidable of acute surgical disorders."

The author emphasizes the following points:

1. Operations for diffuse septic peritonitis should be made as quickly and with as little manipulation as is compatible with thoroughness.

2. Evisceration, partial or complete, greatly increases shock and the prospects of a fatal result.

3. The generous use of clean, hot water will most thoroughly cleanse the infected cavity with the least traumatism.

4. Drainage is simplified by collecting the peritoneal fluid at one point where drains may be easily placed. The elevated head and trunk, followed by the gravitation of fluid to the lower pelvis, best accomplishes this.

5. Results following surgical treatment of diffuse septic peritonitis will be improved should each individual operator adopt some definite form of procedure in such cases, which, being well understood by operator and assistants, may be methodically, speedily, and thoroughly carried.

* * *

CASE OF SUTURE OF THE SPINAL CORD, FOLLOWING A GUNSHOT INJURY INVOLVING COMPLETE SEVERANCE OF THE STRUCTURE.

In August 5th, issue of the Medical Record, George Ryerson Fowler reports the case of A. E., age 18, who was admitted to hospital in April. Patient was shot in the back with a 38 caliber revolver at a distance of 30 feet, taking effect between tenth and eleventh dorsal spines. Paralysis of the lower extremities occurred at once and patient was attended with severe shock. Sensation was absent below wound; bladder and rectum both were paralyzed and evacuation took place without knowledge of the patient. Operation was performed May 9th, 1903. An incision six inches long was made over the vertebrae, middle of incision resting over the 11th dorsal spine. The bullet was found lying transversely between the severed cord ends, being covered with blood clot. A very narrow strip of the dura was remaining intact, and

the remaining portion of cord was drawn together with fine chromic catgut, and the drain consisted of one-half dozen narrow strips of oiled silk, and wound closed with silkworm gut.

On May 30th the following note appeared on the hospital record: Wound healed, upper line of anesthetic area from one and a half to three inches lower than before operation. Twitching of toes of both feet and occasional clonic muscular spasms of the flexors and extensors of the thighs; the patient says his 'feet jump up on him.' Can feel when the bowels move, but is without control of the rectum. Can feel distention of bladder with urine, but is without control.

The main points of interest in this case related to the possibility of regeneration of the spinal cord following a destructive lesion.

* * *

THE SURGICAL TREATMENT OF INTRASPINAL TUMORS.

Richard H. Harte of Philadelphia said that the science of spinal localization was now so well developed that it usually was not difficult to determine with accuracy the location of an intraspinal growth. What was usually understood by the term tumor of the spinal cord was an extramedullary but intraspinal growth like a sarcoma, a fibroma, or a myxoma, giving no evidence of its existence except by the symptoms of medullary pressure which it produced. There had been found records of 92 operations for spinal tumors, among which number 43 patients died, a total mortality of nearly 47 per cent. The nature of the tumor was recorded in 88 of the reported cases. It was sarcomatous in two-fifths of the whole number (37 cases); adhesions, thickenings, etc., hold second place, with 11 cases; then came echinococcus, 8 cases; fibroma, 6 cases; syringomelia, 5 cases; endothelioma, 4 cases; psammoma, 3 cases; cyst, 3 cases; fibromyxoma, 2 cases; osteoma, 2 cases, and one each of myeloma, lipoma, lymphangioma, dermoid cyst, primary and secondary carcinoma, and one tumor of bone whose nature was not stated. The author reported an interesting case of paraplegia from Pott's disease in which he resorted to laminectomy, with great improvement. With very few exceptions, he said, it was impossible to determine the nature of the tumor before operation. He reported a case of dermoid cyst of the spinal canal on which he operated, followed by recovery, the patient being a girl 7 years of age. Of 82 cases in which the region of the spine affected was given, the upper dorsal region was involved in 33 cases, or over 40 per cent. The tumor was found in

the lower dorsal region in 24 cases, in the lumbosacral region in 14, and in the cervical region in 11 cases. The cause of death was given in 28 cases. One-half of these were due to shock and hemorrhage, or to infection and meningitis, there being seven fatal cases under each of these categories. Eight patients died from exhaustion, three from recurrence of malignant growths, two from hypostatic pneumonia, and one from bed sores and sepsis. As regards the technique of the operation, it was essentially the same as when employed in traumatic cases.—*Medical Record*.

* * *

REPORT OF A CASE OF IMPERFORATE RECTUM WITH ABSENCE OF THE ANUS.

Dr. Edward H. Small of Pittsburg reported a case, which was that of a male born under his care. The raphe ran from the base of the scrotum to the tip of the coccyx. There was a phimosos and the base of the penis was turned toward the scrotum. When the boy was thirty hours old he was held in the exaggerated lithotomy position and without the use of anaesthesia a trocar one-fifth of an inch in diameter and two and one-half inches long was thrust, by Dr. J. A. Hawkins, into the perineum where the rectum should have been, into the hollow of the sacrum. When the trocar was about all introduced lack of resistance was noticed, the stylet was withdrawn, and meconium came out through the cannula. The opening was further enlarged, and the rectum could be felt at the bottom of the wound. The bowel was not sutured to the external wound owing to its firm attachment. A rubber catheter was inserted and secured. In five hours the baby was resting quietly and the subsequent course was favorable. At twenty months old the mother reports that the bowel movements are the same as those of other children of the same age. The anus is somewhat funnel shaped, the sphincter is in good working order, but is about one-half inch higher than normal. The dilators are used once a month but cause no pain. The author stated that the case belongs to the third species of Bodenhammer's classification of the Congenital Malformations of the Rectum and Anus.—*Medical Record*.

SUSPECTED POISONING.

In the case of four girls who fell ill at a school along the Hudson, their illness was ascribed to poisoning. The symptoms were very severe and began with vomiting and headache in all of the cases. The only thing

that all of them had taken was some Rochelle salts. These were sent to Philadelphia for analysis. Two of the patients died. When called in consultation Dr. Winters was inclined to agree in the diagnosis of poisoning until he noted that he pupil of one of the patients suddenly dilated and then as suddenly contracted. This aroused his suspicion of cerebro-spinal meningitis and at the autopsies, for all four of the little patients died, this diagnosis was confirmed.

SANITARY LEGISLATION IN PENNSYLVANIA.

A bill has been introduced into the Pennsylvania Legislature providing that in cities of the first class the Bureau of Health shall have supervision over the sanitary condition of all premises, wagons, carts, and receptacles used for the sale and distribution of milk or any of its fluid derivations. Permits are to be granted by the Bureau of Health for such premises or vehicles after inspection. Violation of the act is punishable by a fine of from \$5 to \$25, or by imprisonment for five days for each offense. Another bill has been introduced providing that in cities of the first class the health authorities may from time to time, when they shall deem it necessary to prevent the spread of smallpox, issue an order requiring all citizens to be vaccinated within such time as they may prescribe, excepting such persons as can prove that they have been successfully vaccinated within five years. The penalty for refusal to obey such order shall be a fine of not less than \$5 nor more than \$25 and provision is made that any person unable to pay for such vaccination shall be vaccinated free.—*Medical Record*, Feb. 18, 1905.

ILLINOIS WOULD HAVE STATE SANATORIUM.

A bill has been introduced in the Legislature of Illinois which provides for the location, erection, organization and management of a State sanatorium for persons afflicted with tuberculosis and for making an appropriation of \$200,000 for the purchase of the land, the construction of the necessary buildings and the maintenance of the institution. Chicago is situated in a belt of territory along the western shore of Lake Michigan, which furnishes, as a whole, an average of only 87 deaths from tuberculosis out of every 1,000 deaths from all causes, as compared with an average of 125 out of every 1,000 in the entire United States, and of 137 in the remainder of the State outside of this belt.—*American Medicine* Feb. 18, 1905.

KENTUCKY MEDICAL JOURNAL.

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THE PORTLAND MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

It has been said that catching fish is not all of going fishing; and it is certainly true that hearing medical essays was not all of attending this year's meeting at Portland. The wide expanse of country which had to be traversed by all the eastern delegates, the great variation in scenery, soil and products of valley, mountain, plain and desert—all presented a panorama to be remembered always with pleasure and enthusiasm.

The trip to Portland in the special train under the auspices of the Kentucky Medical Journal was a great success. Passengers were received into the sleeper at Louisville and were disembarked at Portland a week later without change of car or any of the trials incident to seeing the Rocky Mountains "between trains." Barring a disconcerting delay at St. Louis exchanging temporary for permanent tickets (which seemed quite uncalled for to passengers not versed in the mysteries of railroading) the whole trip was accomplished without accident or a single serious hitch, and the train reached Portland almost two hours ahead of schedule time. This was marvelous and almost unprecedented. Going through Kansas some delay was occasioned by a wreck ahead, and also by a detour made necessary because of high water. But this was entirely compensated by a rearrangement of the itinerary which enabled all the sights to be thoroughly done, and the train still to arrive ahead of time.

It is a matter of great regret that more of our Kentucky doctors did not take advantage of the unusual opportunity. No better chance has ever offered, ever will offer, to glimpse the Rocky Mountains, the great northwest, the wonderful Pacific Coast, the Yosemite Valley, the Yellowstone Park, the Golden Land of California. The exposition itself was exceedingly attractive. While only a handful when compared with the wonderful fairs of Chicago and St. Louis, it still had a

unique interest and attraction. And for a visitor who had only a few days at his disposal, certainly the diminutive size appeared in the light of a great virtue, rather than a fault.

The Association Meeting was surprisingly well attended. There was reason to suppose that the great distance would materially lessen the number of members in attendance. But there were more than seventeen hundred registrations. The local committee or arrangements had made what was thought to be ample provision; but as there were said to be about ten ladies registered as attached to every member, it was not surprising that the boats for the excursion up the Columbia River filled and then overflowed into a long train of cars, so that a great part of the throng actually had a steamboat excursion up the Columbia River behind a locomotive. At Saratoga three years ago there were eighteen hundred members present; at Atlantic City last year there were twenty-eight hundred, which was quite unprecedented. This Portland meeting, from standpoint of attendance, probably stands third on the list. The various section meetings were most interesting, as they always are. But somehow this year discussion did not seem to be so free and full as at most of the meetings of the past few years. Possibly this is for the reason that on many subjects which still find place on the program, a practical accord has been reached; and it has become literally true that "the essayist has so fully covered the subject that there really remains nothing to be said." On the other hand there are a few other subjects in which the leaders are so far ahead of the common people that there seems to be nothing much to say. When one looks over the program of this meeting he is seized with eternal regret that he is not, like Gaul, divided into four parts at least. In every section are so many papers of value and interest, and alas! the incumbent can only attend one at a time. He feels the helplessness and sense of inadequacy which accompanies attendance on the three-ring-circus, with clowns and other play in the quarter-mile track on the outside. But inspiration comes from the realization that here are earnest men saying things, able men doing things, that it is all worth while; and then comes a resolution to go back home and work as one has never worked before in the laudable desire to be worthy to associate with these elect of the noble profession of medicine.

When it came time for the House of Delegates to elect a President of the Association there seemed to be thought of only one man, a man as modest and unpretending in demeanor as he is learned and skilled in his profession, Dr. William J. Mayo, of Rochester, Minn.

THE YELLOW FEVER OUTBREAK AT NEW ORLEANS, AND ITS LESSONS.

The present outbreak of yellow fever, with its attendant loss of life, will not have been in vain if some of the plain lessons to be learned from it are learned and become a part of the regular routine at our Southern ports. Thus far the situation has been more threatening of danger than really dangerous; in some of its aspects, in fact it has been ludicrous, and again in others it has shown what an unreasoning animal the human is when panic or fear possesses him. It is unnecessary in connection with the present writing to review the work of Reed, Lazeur and Carroll in Cuba or the history of Havana, when the results of this work were subjected to a test compared with which the situation in New Orleans can be but a bagatelle. The daily prints have properly teemed with Reed's researches, and any modern text book can supply the detailed conclusions of this colossal and convincing work. And yet here on our very soil from which these great and courageous investigators sprang, the lesson which they taught all mankind has gone for naught and it has required, it seems, another burning to teach the child the dread of fire. That yellow fever is an unnecessary evil with us is evidenced by its spontaneous disappearance when the frost kills off the mosquito which is the only means by which the contagion reaches the circulation of man. The batch of mosquitoes born the next year is free from the virus of yellow fever, and if not infected themselves by a case brought from without the borders of this country, there could be no yellow fever in the United States. That it is an ever-present disease along the South American littoral, and that it is annually brought to our shores by the fruit and other fleets from these infected places, is a well-known fact. The great responsibility for the quarantine officers commences then at the season which sees the birth or breeding of the stegomyia. While exclusion of all fever cases from our ports ought to be the rule, since differential diagnosis is not always simple or easy, the rule ought to be doubly enforced after the breeding time of the mosquito, and properly screened detention hospitals should be provided at every port for the care and detention of every suspect, or every person who has been exposed to the disease; and this especially if the stegomyia are found in the hold or other part of the vessel. That this plan means a rigid system of inspection at all our ports is evident, but even the added expense attached to this plan

would be small compared to the cost in treasure and life of the present state of affairs in the South.

Again, the failure of the States to deal at all adequately with the situation, the many places at which both the state and city officials have fallen short of competent performance in handling the local situation, emphasizes anew the need for the placing of the entire matter of the public health under such conditions in the hands of the Federal government. The battle of the fleets of Louisiana and Mississippi will go down to history as on a par with the recent one in the Straits of Korea, and the governors of the two states might well be of Russian birth, considering the character and the "windiness" of their puerile conflict. The unnecessary hardships of the shot-gun quarantine ought never have been felt again in this country, and if reason had prevailed, their complete futility would have precluded any idea of resorting to them again. All of this folly and inhumanity might have been spared us if the strong arm of the Federal Government had been invoked earlier. The proper step was undoubtedly taken by the New Orleans authorities when they gave the Marine Hospital service full swing, but it should not be forgotten that the epidemic was under full headway when that was done, and that many cases and infected places were in existence and not known to the local authorities when the step was taken. The fact that at this writing less than one thousand cases have been reported with less than one hundred and fifty deaths, means not only a much milder epidemic than the last, but undoubtedly a high degree of success in the prevention of new cases as well as the treatment of those who have taken the disease.

I am glad to be able to commend the position of our own State Board of Health in keeping Kentucky an open state. In doing so, they recognize that the yellow fever mosquito does exist in this state and that if we are careless, yellow fever may prevail here as it has before. The regulations which they have framed, if honestly carried out by competent persons, are entirely sufficient to prevent its getting a local foothold, and we hope no false sense of security will tolerate the least negligence in the execution of them. It ought not be forgotten that the present situation in New Orleans has resulted from the introduction of possibly a single case of the disease early in the summer, and similar conditions may easily arise with us if a single case of yellow fever gets into our mosquito-infected cities.

J. A. FLEXNER, M. D.

THE CHEMISTRY OF MILK.

Certain recent advances in our knowledge of the chemistry of milk furnish an explanation of some well recognized phenomena which heretofore have rested upon a purely experimental basis.

L. L. Van Slyke, Ph. D., Chemist at the New York Agricultural Experiment Station, has recently written a valuable article on "The Chemistry of Cow's Milk," which appeared in the July issue of the Archives of Pediatrics. The article is so full of information, boiled down and condensed, that it is impossible to do justice to it in an abstract, but the important dicta concerning the action of rennet and various acids upon the curdling of milk have such a practical bearing upon the difficult problem, the feeding of infants, that that portion of the article will be reviewed rather fully. There are four proteid compounds in milk, casein, albumin, globulin and galactase, but the last two are in such small quantities as to be practically negligible. Casein exists in combination with calcium and is properly called calcium casein. When it is acted upon by the very dilute acids, the calcium first combines with the acid and on further addition of the acid the casein molecule combines with it to form a salt of the acid. Each of these is soluble in an excess of the acid. When rennet is added to milk it converts the calcium casein into calcium paracasein which is a physical change, for chemically there seems to be very little, if any, difference. Here again the addition of an acid removes the calcium and leaves paracasein free, but further addition of acid results in a combination of the acid and paracasein, forming a salt. The principal conditions which affect the coagulation of milk by rennet, are,

(1) The presence of soluble lime salts appears to be necessary for rennet coagulation of milk.

(2) Acids and many acid salts favor coagulation, whereas alkalies and alkaline salts retard it. The following substances also retard rennet action: Sodium chloride, sodium phosphate, sodium acetate, sodium citrate, boric acid, etc.

(3) Dilution of milk by water delays rennet coagulation of milk because the proportion of soluble calcium salts is decreased. When lime water is added to cows' milk until it is neutral or fairly alkaline to phenolphthalein, a basic calcium is formed which is not acted upon by rennet, and will not form a curd even in the presence of soluble lime salts.

(4) Milk heated above 150 degrees F. for

a considerable length of time coagulates less rapidly than normal milk. The coagulum of heated milk is highly flocculent, unless one adds soluble calcium salts or some acid. Boiled milk does not coagulate normally, if at all, by rennet.

These facts selected from a number of observations upon milk as showing the rationale for many of the accepted methods of handling the casein of milk in those cases which find cow's milk difficult of digestion.

Sodium chloride, sodium phosphate, and the carbonates of the alkalies, have long been used because good results followed their addition to the milk. Now such results are explainable on a scientific basis. Poynton of London has advised sodium citrate for its beneficial action in aiding the digestion of the curd. I saw many cases of malnutrition and marasmus that were benefited by its employment. I have tried it on a number of cases, in one or two with brilliant results, and usually with good results.

The addition of water has long been known to reduce the size of the curds, and the fact that boiled milk does not normally curdle from rennet is applied in the use of condensed milk, which agrees with the great majority of infants, although for various reasons it is far from an ideal food.

Rennet is present in the gastric secretion very early in the infant's life but hydrochloric acid is not present until later, and only slowly does its secretions attain to the per cent found in the adult. The curd by rennet in the absence of acid is light and flocculent. The weak digestive powers of the infants's stomach and especially the feeble motility of the stomach, require that the food be easily passed on into the intestines for final digestion. When the hydrochloric acid is secreted in larger quantities the combined action of the rennet and the acid results in a firmer and larger curd, but the pepsin in the presence of the acid is better able to convert the paracasein into peptone. Koplik has shown the teleological significance of this by demonstrating that the firm curd acts as a stimulus to the musculature of the stomach wall, and thus the secretions and the peristalsis mutually stimulate and supplement each other.

It is by such work as this that distinct advance in this very difficult field of the pediatrician is made possible, and science adds that much more to the thorough knowledge of all the conditions which surround the young.

PHILIP F. BARBOUR, M. D.

The Medico-Pharmaceutical Journal of New York City, has removed its office of publication to 45 West 128th Street.

THE KENTUCKY STATE MEDICAL ASSOCIATION.

The *Kentucky State Medical Association* meets in Louisville on October 18, 19 and 20. Let every member of the State Association bear this in mind and make every reasonable effort to be present at the meeting. Do you believe that organization is worth while? Then attend the State Association meeting and lend your presence and give encouragement to the great cause of organization.

It is to be noted that the date of the meeting has been changed from October 4, 5 and 6 to October 18, 19 and 20. This change of date has been made necessary because of the Horse Show, which holds the boards the first week in October.

The House of Delegates will be called to order in the parlors of the Galt House on Tuesday evening, October 17, at 8 o'clock. Delegates must be on hand for this meeting, as practically all of the business of the House will be transacted at this first meeting, leaving the delegates free to attend the scientific meetings.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

After a somewhat protracted and uneventful period of somnolence, the *Carroll County Medical Society* has again opened its heavy eyelids to the consciousness of having a mission to perform, and met in Carrollton on the 15th of August at 2 o'clock, with the President, Dr. H. C. Brown, in the chair.

Dr. B. L. Holmes read a thoughtful and exhaustive paper on "Purulent Conjunctivitis in the Newly Born," with report of cases, which was actively discussed by all present.

The following resolution was introduced and met with general approval. "The regular meeting of this society shall be held quarterly, on the Tuesday after the first Monday of January, April, July and October."

Drs. N. C. Brown and P. V. Ellis were selected as essayists for the next meeting. Upon motion it was decided to ask Dr. Cecil, councillor for the district, to be present and deliver an address.

We are determined that this society shall live and prosper.

F. M. GAINES, Sec'y.

The *Metcalf County Medical Society*, met at Sulphur Well, at the Sulphur Well Hotel, July 7th, with Dr. J. A. Yates, President, in the chair and the following present: Drs. D. C. Donan, Three Springs; W. T. Sandridge, Wisdom; S. C. York, Centre, and J. A. Yates, and H. R. Vanzant, Edmonton. The meeting was called to order by the president, and the minutes of the last meeting read and approved.

Dr. U. G. McPherson presented a very interesting case, a young man about 25 years old. When about two or three years old, he was playing with a boy who hit him, making at the time a very small mark or discoloration of the skin about the size of a fingernail which afterwards got sore and began to enlarge. It is now as large as a hen egg, and during hot weather gives the patient a great deal of trouble. This tumor is very dark, almost black.

After examination and discussion it was decided that the best procedure would be to operate and remove the tumor. This, the patient consented to have done a little later.

Several other cases were reported and discussed, and Dr. D. C. Donan read a paper on "Strangulated Hernia."

There being no further business, the Society adjourned to meet at Sulphur Well on the second Saturday in August.

H. R. VANZANT, Sec'y.

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The *Metcalf County Medical Society* met at Sulphur Well Hotel, Sulphur Well, on Saturday, August 12th. The following doctors were present: William Edwards, D. C. Donan, S. C. York, U. G. McPherson and H. R. Vanzant.

Dr. Yates, President, being absent, Dr. William Edwards, of Edmonton, was elected chairman, pro tem. Dr. Edwards gave a very interesting talk on the object and benefits of a medical society, after which the meeting proceeded in regular order. The minutes of the last meeting were read and approved.

Some very interesting cases were reported by Drs. York, Donan and McPherson. The following members were appointed to read papers at the next meeting:

Dr. M. L. Watson, "Summer Diarrhoea of Children;" Dr. U. G. McPherson, "Typhoid Fever," Dr. Fidella Edwards, subject to be of his own selection; Dr. H. R. Vanzant, "Fracture of the Fore-arm."

The society then adjourned to meet at the Sulphur Well Hotel the first Saturday in September at half-past ten o'clock, sharp.

H. R. VANZANT, Sec'y.

The *Monroe County Medical Society* met at the Clancey House, Tompkinsville, Thursday, July 20th, with Dr. Duncan in the chair, and Drs. Bedford, Bushong, Bristow, Hamilton, Lindsay, Palmore, Ray, Smith and Walden, present.

After the reading of the minutes of the last meeting, Dr. Walden presented a patient, a boy two and a half years of age, who had diphtheria four months ago. Antitoxin was used at the time of onset, but the little fellow still had a sore throat and came for examination and treatment. Examination revealed hypertrophied tonsils, slightly red, no patches. Dr. Walden had advised having tonsils removed, which was concurred in by the society, but the removal was deferred on account of not having tonsillotome at hand.

Next, Paul —, age three years was presented. History showed scrotal trouble, noticeable for two years. Scrotum enlarged on left side, seemingly filled with a fluid, which partially disappeared when patient was placed in a recumbent position. Dr. Bristow advised that the hypodermic needle be used to make positive diagnosis, but this was deferred on account of the parents being absent.

Dr. Smith next reported a case of placenta previa, in primipara sixteen years of age. When seen she had been in labor twenty-four hours, had had no hemorrhage till labor began. On examination found placental presentation covering entire dilated surface of os which was seemingly two and a half or three inches, with border of placenta not in reach. As hemorrhage was not great, decided to wait for a few pains, which in about 30 minutes pushed head of child through placenta, and delivery was complete in another half hour. No profuse hemorrhage after delivery, placenta passing immediately after child. Placenta had hole through center, cord to one side. Mother and child living. Attendant midwife stated os had been fully dilated for 18 hours. The whole society congratulated Dr. Smith on the happy termination of this case.

Dr. Hamilton reported a case for diagnosis. Male, while, teacher, 24 years of age, from Indian Territory two weeks ago. When first seen was complaining of heavy, dull headache, mostly in back of head, pain in his legs and hips, cold, chilly feeling, feet and hands icy, fire felt good, tongue thick and brown but appetite good, tightness in chest, enlarged liver and spleen, stomach tender, no tenderness and no tympany but an uneasy feeling in bowels but constipated, pulse 90, temperature 104 in evening—temperature was irregular it was stated, some times high in the mornings and low in the evenings, and

vice versa. The doctor had told patient he had remittent malarial fever, but patient got gradually worse and the doctor feared he had typho-malarial fever. Dr. Bushong said: "In ten days Dr. Hamilton can report again and say 'A severe case of typhoid fever.'" The society here took occasion to discuss the treatment of typhoid fever, Drs. Bushong and Walden contending for turpentine and buttermilk.

Dr. Bristow reported a case of a farmer, 25 year old, with pain in the back of neck, severe abdominal tenderness, held cover off of abdomen, constipated, laid on back with legs flexed, temperature 97, pulse 104, respiration short and shallow, jerky. In two days his temperature was 99 to 101 and remained so for two weeks, when patient returned to normal.

Dr. Duncan next read his paper on "Cholera Morbus" which was discussed by all.

Society adjourned to meet at Spivey, Tennessee, Thursday, August 10th.

E. E. PALMORE, Sec'y.

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The *Oldham County Medical Society* met at Beard, Ky., Thursday, July 27th, 1905, Dr. J. H. Spear, President, in the chair. Fifteen physicians were present, and two new members were added to the society. The association had the pleasure of having as guests, Drs. Dugan, Gilbert and Wilhoite, of Louisville, and Drs. Weatherly and Mason, of Middletown. These brethren were unanimously elected honorary members of the association.

Dr. R. B. Gilbert gave a most excellent talk on "Diseases of Children during the Summer Months, and Treatment."

Dr. J. L. Harbold read a paper on "Cerebro-Spinal Meningitis."

Dr. J. A. Freeman read a paper entitled "Too Much Insulation."

Dr. Cassady gave an impromptu, but most excellent, talk on "Closer Ties of the Physician to his 'Professional Brother.'"

Drs. Wallace and Boone reported a case of tetanus and treatment.

The above papers were discussed at length as every one present had something to say.

A resolution was passed, favoring the placing of the statue of Ephriam McDowell in the Hall of Fame.

A committee was appointed to wait on the physicians in the county, who are not members of the Association, and prevail on them to take membership with same.

Dinner was served in the dining hall of the camp grounds, and all present decided that it

was the most successful meeting of the Oldham County Medical Association.

Adjourned to meet at Beard, Thursday, August 24th.

R. B. PRYOR, Sec'y.

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The *Warren County Medical Society* met on Wednesday, August 9th, in the Knights of Pythias hall. In the absence of the president and vice president, Dr. J. H. Souther was elected president pro tem, and the meeting was called to order by him.

Dr. G. E. Huddle read a very interesting paper on "Hemorrhoids." He took up internal and external hemorrhoids and dwelt at some length on treatment of same, rather advocating clamp and cautery, though often using carbolic acid injection treatment. He also spoke of the importance of a thorough examination of each patient. A general discussion of the subject followed the reading of the paper. Drs. T. W. Stone and B. S. Rutherford advocated the litigation and injection of carbolic acid. Dr. Hall recommended a general anesthesia, free dilatation of the sphincter ani, and the use of the clamp and cautery.

The regular program of the meeting was dispensed with at this point and yellow fever made a special subject. Dr. J. N. McCormack was called upon and made a very interesting and instructive talk on the subject, bringing out very conclusively that the only source of infection is by the bite of the *stigmomyia fasciata*. He gave the plan adopted by the State Board of Health in which our state is protected or guarded as to the possibility of the disease coming into our state. Others spoke on the subject, and Dr. Blackburn gave some wise suggestions brought about by questions of the society.

There was also a great deal said about screening our houses as protection against the house fly, the great source of infection of typhoid fever.

While Dr. McCormack had the floor he spoke of organizing a post graduate class in our county, as is being done elsewhere with very beneficial results, and a committee composed of Drs. Blackburn, Huddle and Campbell was appointed to report on the subject at our next meeting.

We were very much gratified to have with us, Dr. N. P. Blackerby, of Berlin, Bracken County, the father of our townsman, Dr. J. F. Blackerby, and hope he will visit us again.

There being no further business, the meeting adjourned.

E. N. HALL, Sec'y., pro tem.

PRESS BULLETIN NO. 1, ISSUED BY THE STATE BOARD OF LIVE STOCK COMMISSIONERS OF OHIO.

W. W. Miller, Secretary, Paul Fischer, Veterinarian, March 30, 1905.

RABIES (HYDROPHOBIA) AMONG LIVE STOCK.

During the past year rabies has become increasingly prevalent among the live stock on Ohio farms. The disease has been observed in nearly every county of the state, and within the past two weeks outbreaks have occurred on at least nine farms in a single county. The victims including not only horses, cattle, sheep, swine and dogs, but human beings as well.

In the absence of state laws for the control of the disease and the failure of local authorities to take up the matter, it is desirable that the general public be informed as to the nature of the disease and the best means to protect life and property against its ravages.

Rabies is a germ disease that may occur in all animals, as well as in human beings. In nearly all cases it is spread by means of the bite of an affected animal and there is no record of a single instance where the disease developed spontaneously.

After an animal has been bitten, and thus inoculated, it requires a variable time for the disease to develop. This time, which is known as the period of incubation, may be of a few days duration or it may extend over several months. In dogs the average period of incubation is from three to six weeks. In the hog it is somewhat shorter; in horses, cattle and sheep it is from one to two months. But as before stated, the period may be much shorter or much longer than those given.

The symptoms of the disease are not alike in all animals although they are always those of a nervous disorder. There may be abnormal excitement or nervous depression, depending on the stage and form of the disease as well as on the natural weapons of defense. Thus the dog and pig will bite viciously, sheep and cattle will use their heads and horns, horses their hoofs and cats their teeth and claws. Many horses will bite, but this is rarely true of sheep and cattle.

One of the most characteristic symptoms is the peculiar change of the voice. The bark

of a mad dog is emitted in single prolonged impulses of a distressing tone and might be described as halfway between a howl and a bark. Cattle emit distressing bellowing sounds, horses neigh and snort in a peculiar "muffled" manner. Sheep may bleat hoarsely or brokenly. These changes in the voice are due to a paralytic condition of the vocal chords. Dogs usually become restless, roam aimlessly about, snap at imaginary objects, swallow indigestible things like pieces of wood, stone, straw, dung, etc., and bite without provocation. Horses kick, bite, tear their mangers into pieces, sometimes, in their great agony, tearing the flesh from their limbs and shoulders. Cattle paw with their feet, dig up the ground with their horns, attack each other, run their heads against fences, buildings, posts, and try to gore man or beast. Their eyes are usually red and prominent. Sheep act in a similar manner. These animals rarely attempt to bite.

All animals show symptoms of a depraved appetite, apparently preferring to eat earth, dirt, manure, etc., to their natural food. Affected animals are usually thirsty, and have no dread of water, though they are frequently unable to drink on account of the existing paralysis.

After one to several days, or even a week, the animals invariably die. The pig, when affected with rabies, bites viciously, and is, for this reason, one of the most dangerous animals. The dog, however, from the fact that it is usually at large and has complete liberty of moving about from place to place and from farm to farm, is the agent that is chiefly responsible for the spread and perpetuation of the disease. The pig, when at large, is fully as dangerous an animal as the dog.

Animals suspected of having the disease should be carefully isolated and guarded until an opinion as to the real nature of the disease has been obtained from a reliable veterinarian. If the disease is rabies, or if the owner of a suspected animal has good reason to believe this to be the case, the State Board of Live Stock Commissioners should be notified at once and furnished with detailed information as to the origin and extent of the disease, as far as this may be known. Hereupon the Veterinarian of the Board will make a careful investigation of the reported outbreak so that such action may be taken by the Board as the safety of the owner of the affected and exposed animals, and the public in general, may demand.

In any neighborhood where the disease has made its appearance no dogs should be allowed to run at large unless they are provided with a well fitting muzzle, or led with a chain.

Strange dogs, roaming at large, should be destroyed at the first opportunity, and before they have time to do any possible damage. Other animals that are suspected of having been exposed to infection should be isolated and carefully watched for a period of at least three months before they are permitted to mingle with other animals. Exposed pigs, located by the Board of Live Stock Commissioners, are appraised and destroyed, and the owner paid for his loss.

The most important thing in the control of rabies is the proper handling of the dog question. As long as the country is full of dogs whose owners permit them to run at large without proper muzzle, rabies will continue to exist, and break out at more or less regular intervals.

In countries where rabies was alarmingly prevalent in former years the disease has practically disappeared since laws preventing the uncontrolled roaming about of dogs have been enforced. We must look forward to the time when the same effective measures can be applied here, but until then farmers and live stock owners, as well as other persons, should do everything in their power, as individuals, to prevent the unnecessary spread of rabies, by destroying every suspicious dog and seeing to it that their own dogs, when running at large, are properly secured with a well fitting muzzle. A properly fitting muzzle is no hardship to an animal, it not only permits drinking and barking, but prevents the possibility of being poisoned by enemies of the owner, and above all it is an absolute prevention of the spread of rabies. The muzzling of all dogs for a period of one year, would put an end to the disease, save the state thousands of dollars in stock that is annually destroyed, and prevent the useless sacrifice of human life. After a period of one year the muzzling restriction could be removed until the disease was re-imported from other states where no protective measures exist, when the same measures would have to be repeated.

Suspected outbreaks of rabies in dogs, or any other animals, should be reported at once, either by letter, telegraph, or telephone to The State Board of Live Stock Commissioners, Columbus, Ohio.

TOUCHING TRIBUTE OF PHYSICIANS TO MEMORY OF THEIR DEPARTED BROTHER IN ARMS.

At the meeting of the Franklin County Medical Society Saturday afternoon, August 5, 1905, a committee was appointed to prepare suitable resolutions on the death of Dr. Joseph Samuel Demaree, which occurred in Shelby

county, near Bagdad, on the 4th of August, at 1 p. m., of a lingering case of typhoid fever, born in Shelby county in 1865. He was educated at Memphis and graduated in medicine from that city in 1888. He began the practice of medicine in Maxwell, Washington county, where he practiced for eight years, and one year in Danville. From those points he came to Frankfort in 1902, where he built up a large and successful practice. His suavity of manner, retiring and unassuming disposition won for him a host of personal friends and a confiding clientage.

Dr. Demaree was married in 1889 to Miss Trent, of Washington county, by whom he had one son, now living, aged fourteen years, and a son who died in infancy. His wife died in 1898, since which time his whole affections and happiness were centered in the rearing and caring of that surviving son, whose manly character evidenced a paternal care that is most beautiful. Dr. Demaree will be buried Sunday, the 6th inst., at Willisburg, Washington county, beside the wife of his young manhood and sleeping babe. He leaves three brothers, Dr. O. B. Demaree, Henry and George Demaree.

His illness was of that marked type of typhoid fever which offered no hope from its first invasion, developing a continuous hemorrhage, which neither skill nor affectionate care could control.

Consciousness remained with him until the last moments, and he was fully aware of the very serious condition, and in great measure was the consultant and director of treatment in his own case.

He was a Mason of high degree; Master of the Blue Lodge at Willisburg until he came to Frankfort, which lodge will conduct the burial services, assisted by a committee of brothers from Hiram Lodge, No. 4, Frankfort, who will accompany the remains to their last resting place.

Blessed is the consolation that the setting is always followed by the rising sun, and that he now enjoys the rising of that sun from the rising of that sun from the great white throne.

A life long friend and acquaintance said to the writer of this memorial that Dr. J. S. Demaree was the most moral man and the cleanest character he has ever known. He was truly a man without guilt. His professional brethren can bear testimony that he was punctiliously ethical in his relations with his brother physicians; charitable, courteous, and above all and at all times a gentleman.

Resolved, That this memorial be spread on

the records of the society; a copy presented to his family, and the Frankfort papers be requested to publish the same. Also that the secretary of the county society furnish a copy to The Kentucky State Medical Journal.

Adopted.

U. V. WILLIAMS,
W. E. ALLEN,

Committee.

TREATMENT OF PATHOLOGIC FACE AND BROW PRESENTATIONS.

J. B. de Lee gives as the result of a study of twenty-one personal cases of face presentation, the following directions for their management: 1. With normal pelvis and normal child, with the chin anterior, watchful expectancy. 2. Normal pelvis, normal child, chin posterior, at first expectancy; when the chin shows any tendency to rotate to the front, manual correction to occipital presentation; failing in this, podalic version. 3. Normal pelvis and child, face deep in pelvis with chin anterior and a strict indication for delivery, forceps are to be used. 4. Normal pelvis and child, face deep in pelvis with chin in posterior position, manual correction when version is contraindicated. If this fails, craniotomy or symphysiotomy are the alternatives. 5. In the mildly contracted flat pelvis with normal child, version should be elected. 6. Contracted pelvis of mild degree, normal child, manual correction followed by expectancy. 7. Face presentation complicated by placenta prævia, prolapse of the cord or extremities, rigidity of cervix, threatened rupture of the uterus, or a dead child, monstrosity, or highly contracted pelvis, offers no good field for manual correction, though it rarely may be done.—*American Medicine*, Nov. 12, 1904.

IMPERIAL SUPPORT OF THE TOTAL MOVEMENT IN GERMAN.

German army officers are henceforth to be allowed to drink to the health of the Kaiser or anybody or anything else, in plain water instead of beer or Schaumwein. This permission was given in answer to a request by Dr. Adolph Banzer of Munich, a member of the Society Against the Misuse of Spirituous Liquors, asking whether officers might drink toasts in water. The Prussian minister of war replied that the Emperor has replied to the inquiry to the effect that "no compulsion exists to partake of toasts in alcoholic drinks and that it may be left to the movement now in progress to advance this idea in all circles."

RECURRING MEMBRANOUS STOMATITIS WITH ERYTHEMA EXUDATIVUM MULTIFORME.

L. E. Blair reports a case of hebra coming primarily or in a freak manner on the mucous membrane of the mouth and contiguous parts followed in severe attacks by the skin eruption. He brings together the different views of writers to show the confusion which exists in the etiology and clinical picture of this disease. In his case the stomatitis existed from four to ten days before the skin disturbance. Cases which show desquamation are exceedingly rare. In this case the peeling was severe especially on face, hands, feet and abdomen. Eight months later coppery discoloration and scars marked the site of eruptions. Red blotches of new skin are also apparent on violent exercise.

WAR AGAINST THE MOSQUITO.

According to the New Orleans *Picayune* it appears that Dr. Quitman Kohnke, health officer in New Orleans, has persistently advocated in his home city that another means should be employed to prevent the breeding of mosquitos, holding that the municipality should employ a corps of persons to engage in the warfare, using kerosene on all surface water. It seems that New Orleans failed to

hear the advice of Dr. Kohonke until San Antonio, Texas, responded to the call, and in consequence of lectures in that town by Dr. Kohnke, a brigade of school children has been employed to place kerosene in all the pools of stagnant water in the vicinity. New Orleans has now awakened from her lethargy and is following the example of San Antonio.—Ex.

CONSENT OF THE PATIENT MUST BE OBTAINED BEFORE THE PERFORMANCE OF A MAJOR OPERATION.

The decision of an Illinois court affirming a finding of \$3,000 damages against a surgeon charged with operating upon a woman without her consent, will be taken to the Supreme Court of the State. The decision of the lower court was rendered in 1897, and that of the Appellate Court was handed down last week. After the operation, it was claimed, the plaintiff's condition became critical, and she is now a patient in the Kankakee Insane Asylum. The decision of the Appellate Court is that any surgeon who performs a major surgical operation without the consent of the patient is liable to damages. The consent of the nearest relative does not relieve the surgeon of the liability.—Medical Record, Feb., 25, 1905.

Medical Department

VANDERBILT UNIVERSITY, NASHVILLE, TENN.

IN ADDRESSING THE MEMBERS OF THE MEDICAL ASSOCIATION OF KENTUCKY, we are speaking to many of our Alumni, who were trained, while students, to believe in medical organization. To one and all members of the Kentucky Medical Association, Vanderbilt sends greetings in making these announcements:

First, the course covers four years of seven months each, and the instruction, strictly graded, is given didactically, in recitations, in laboratories and in clinics.

Second, beginning with the session 1905-6, the minimum preliminary educational requirement will be a High School diploma, or a completed course in a Preparatory School in affiliation with a College or University, or the equivalent, the latter to be determined by a Superintendent of Public Instruction.

Third, graduates of reputable colleges and universities will be permitted to take the first and second years' work in one year, thus making graduation possible at the end of the third year.

Fourth, the advanced preliminary requirements do not apply to students who have already taken one or more courses in medicine. Such students from other colleges will be admitted into our classes on their individual merits, as shown by the certified work previously accomplished by them.

Fifth, the next session will begin October 2, 1905. All students should make arrangements to be present on the opening day. Address, for further information,

DR. LUCIUS E. BURCH,

150 Eighth Avenue, North.

NASHVILLE, TENNESSEE.

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NO. 5.

OUR PROSTATICS—WHAT ADVICE AND TREATMENT SHALL WE GIVE THEM.*

By HENRY H. KOEHLER, M. D., Louisville, Ky.

Professor of Genito-Urinary and Skin Diseases, Kentucky University.

When a man advancing into the fifties comes to us with symptoms of urinary distress and uneasiness, we feel, if we are alive to the possibilities of the case, that we are confronted with one likely to demand our best judgment and skill for years. If the rectal exploration then demonstrates that we are dealing with a prostate in the early stages of hypertrophy we can not fail but realize that this man's future comfort and welfare are largely dependent on how we manage the case in the very beginning. Our first duty is to impress upon such a patient the great role that his own conduct, the observance of certain hygienic rules, plays in his treatment. In this, we will not be equally successful in all cases, much depending on the intelligence and temperament of the individual. It is wise, I believe, always to explain to him as far as possible the nature of his trouble, the possibility of further growth of the gland, and the futility of any internal treatment in hindering this growth or causing a reduction in size. He will then perhaps see the point that the question resolves itself into, making the best of a bad bargain.

Our instructions to him should be emphatic. He must avoid anything tending to congest the prostatic urethra, and thus bring on retention.

The prostatic must realize that much of his comfort will depend on himself, in gracefully accepting conditions as they are and acting accordingly. He must come to realize that whereas he may be sturdy and sound in every other particular, he has a weak spot in his armor, and that a prostate enlarged to the point of irritability is a thing to be humored, for no amount of bodily vigor will overcome its deficiencies.

The amount of suffering is not always proportionate to the extent of the enlargement. The early distress of the bladder neck in prostatitis before a cystitis has set in, is unquestionably largely due to a congested condition

of the capsule. This capsule is the seat of a venous plexus which will at times acutely congest, just as hemorrhoids will in the rectum, and one can see, bearing this in mind, why anything that tends to produce stagnation in the venous return flow from the pelvis aggravates these cases.

In taking hold of a case of hypertrophied prostate we should proceed with great caution. Begin by making a thorough examination of the urine both chemical and microscopical. This is absolutely essential. We must know if a cystitis already exists, and it is certainly well to know the condition of the kidneys. There is also a possibility that the frequency of urination is due to an unsuspected diabetes, the excess of sugar causing most of the symptoms.

The prostate should be thoroughly palpated through the rectum, its contour mapped out exactly, the height to which the enlargement rises ascertained and also how low down into the perineum it reaches.

If the case is one of retention and the withdrawal of urine necessary, this should be done with care. Thorough asepsis should be aimed at, and the manipulation of the catheter, always preferably a rubber one, done with gentleness.

Cystoscopic examination of the bladder where the prostate is enlarged is not to be advised. The inspection is nearly always imperfect and does not reveal anything additional to what we know, the passing of the instrument through the prostatic urethra often resulting in traumatism, frequently followed by urinary fever, still more debilitating the subject.

The patient must be instructed to avoid excesses of any kind, no over-indulgence in eating and drinking. Anything which has a tendency to produce a stasis of the venous flow in the pelvis will be found to be detrimental. Just as we see exacerbations in hemorrhoids, we find much the same condition in the plexus of veins of the prostatic capsule, the efficiency of which is already interfered with by pressure of the growth.

Sudden retention in such patients is a common thing and the urgency of relief demanded will often induce a certain negligence in our technique. Right here is where the medical attendant may become a complication, the decline of the patient's health dating

* Read before the Jefferson County Medical Society, June 20, 1905.

from the first carelessly performed catheterization. The metallic catheter should be thrown away. All instrumentation had best be done by woven silk coude type, or soft rubber instruments. The mischief is done by bruising the congested prostatic canal and secondarily infecting the bladder. Let us religiously avoid this and our prostatitis can be carried along for years in comparative comfort.

It is astonishing with what little thought and discrimination drugs are often prescribed in urinary troubles. An inflammatory condition of the bladder is to many a signal to give alkalis. This is very well if the urine is highly acid and irritating, but one must remember that an alkaline urine is an abnormality and becomes a menace. The phosphates, always precipitated in such a urine, are irritating, they may become the nucleus of a stone. An acid urine is a restrainer of bacterial growth and is to be aimed at in our medication, for the urine of prostatitis is only too apt to become alkaline from decomposition, the phosphates combining with the pus present in thick, tenacious, irritating masses. Our efforts must here always be to change the character of the bladder contents, which can often be very happily achieved by the use of urotropin. For the tenesmus in the earlier stages *santal oil* will be found beneficial. Morphine is not to be given unless the distress is wearing the patient out. The feet and legs must never be chilled. All patients with a tendency to inflammatory conditions about the bladder neck complain of uneasiness and discomfort on wet chilly days, and special care should be taken at such times. The underwear should be woolen and the patient best of all kept indoors when the weather is unsuitable.

Then in the beginning let us advise our patient, if he is an intelligent one, that he is suffering from a condition common to quite a large percentage of men of his age and that we have nothing in the way of drugs capable of exerting a restraining effect upon the growth of the prostate. Let us caution him in the beginning about the extreme value of a continent and simple life. Impress him with the fact that the longer he can comfortably put off the day of the catheter the better. The indications for its use should be only in cases of retention and the existence of residual urine. The medical adviser himself should rid his mind of much of the rubbish with which enthusiastic but misguided operators have befogged the subject. Let him dismiss any lingering belief in the efficacy of vasectomies, castrations, starving the prostate by the ligation of large and important blood

vessels. Also to consider the Bottini operation as eminently unsurgical and one often followed by distressing results.

When the time has arrived that surgery is to be done, there is but one thing to consider—a prostatectomy, the choice of which will nearly always be the perineal operation. In a small percentage, when enlargement is high up and the patient fat, the suprapubic route will perhaps offer advantages, though this is much to be questioned.

The so-called palliative treatment in prostatic hypertrophy is often anything but palliative. Our intentions are of the best but frequent catheterization, the retained catheter, sounding and other doubtful measures only bring about irritation and congestion at the vesical neck.

Retention is apt to result and as a consequence the great thing to be dreaded follows, a bacterial infection and a cystitis.

Continued catheterization is advised by the highest authority, yet I am bold enough to claim that the procedure is not a good one, being badly borne, adding much to the discomfort of the patient and accomplishing little.

Nowhere do we see such a beautiful example of the vicious circle as in advancing prostatic enlargement. In the earlier stages, owing to frequent contraction, the muscular portion of the bladder wall hypertrophies also. We find some of these bladders capable of holding only a few ounces of urine. This must always be borne in mind in casting a prognosis. Even with the prostate gone and a free exit granted through the urethra, the limited capacity of the bladder will necessitate frequent urination, a condition that time may perhaps remedy but often does not.

Residual urine may be due to the stagnation of a part of the vesical contents in a post trigonal pouch, or it may indicate that a state of atony of the bladder wall has set in. In such cases the bladder dilates instead of contracting and becomes a lifeless sac owing to an extensive muscular degeneration. Such profound changes must always be borne in mind; they argue eloquently for early surgical interference before the bladder is irretrievably ruined. The bladder must be in a condition to take advantage of the relief afforded it by removing an obstruction; if it has passed beyond this point, the good achieved will be slight.

With residual urine the patient sooner or later comes to a catheter life followed surely at some time by a contamination of the urinary residue, resulting in its decomposition.

The inflammatory era of the prostatic life now begins. A cystitis is set up, the patient's health rapidly declines. In addition to the worry of a nagging bladder, a state of tox-

aemia is found. At first perhaps only a sapraemic condition with malaise, slight fever, and loss of weight, but eventually true and definite attacks of sepsis—urinary fever, each one a shock sending the patient nearer his exit. The time when residual urine is found to accumulate is the critical hour in a prostatic's life, and if he is to undergo some radical measure of relief, let it be done before his vitality is sapped.

The operation of perineal prostatectomy in such cases is a safe one. The prostate can usually be quickly and easily shelled out through a good sized straight perineal incision, the enucleation being done extra-urethral, after making the gland prominent by downward traction with the prostatic retractor introduced through an incision into the urethra. Skilled operators have frequently performed this enucleation without the retractor.

Packing of the cavity with iodoform gauze for a day or two and the leaving of a large tube in the bladder for drainage for a day longer completes the operation. Bed rest is only advised for a short time; the patients are urged to get up after a few days and assume the vertical position.

The continual suffering of old prostatic cases makes an imperative demand on our professional skill. Medical treatment can only be palliative, and while in a way necessary, can never in any sense be curative. The appeal is then to surgery, and after many years of experimenting, the time has come that the genito-urinary surgeon should take the bull by the horns.

Just as gynecological tinkering has disappeared from the field and sane surgery has taken its place, it behooves us now to cease subjecting the prostate to unnecessary instrumentation and inflicting on it crude and unsurgical measures.

I see no escape from the conclusion that, when a prostate is enlarged to the point where residual urine occurs, either through atony of the bladder walls, or due to pouching behind the gland, and a purulent cystitis is next on the programme, as it inevitably is, our advice should be—*out with the prostate*.

DISCUSSION.

Dr. J. R. Wathen:—There is very little that I can add to the doctor's splendid paper. He seems to have covered the ground quite thoroughly. I am glad to see that he has taken one stand, and that is in the last part of his paper when he says that the time is now ripe for less temporizing with the prostate and more radical work. This is quite true and in most of these cases where medicinal means

have failed the radical operation is followed by success.

When to operate in these cases is always an important question, and the majority of men to-day agree that we should operate when we find that there is frequent urination, repeated cystitis, residual urine, pain and necessity for continuous catheterization. Now, when these complications set up it is invariably time to operate. If the diagnosis can be made earlier, better success will attend the radical operation. The high mortality is due to the surgeon's seeing the cases when the men are very old and when the case has advanced to such a septic condition that the mortality is of necessity high. Most of these cases should have been operated on previously. We should not wait until a man is seventy-five years of age when he should have been operated on at fifty.

As to the advantages of this method of operating, I differ from Dr. Koehler. He says that the perineal method is the better. That may be true in a certain limited number of cases. I should think especially, that that would be indicated in the late cases where the bladder is infected, but I should think the ideal method in the cases seen earlier would be the supra-pubic method.

The few cases that I have operated on have been by the perineal route. In the future I shall use the supra-pubic more. I think it is undoubtedly the coming method. Deaver says that in fibrous prostates where an inflammatory reaction has set up, they can be dealt with very easily from below, but the large adenomatous masses that project up into the bladder can be better dealt with from above, and the after results are good. The after-results as to incontinence are better than after the perineal method. There are no such results as urinary and fecal fistulae and the like, when the supra-pubic method is used.

There is very little else that I can add to the doctor's excellent paper. He covered the ground thoroughly, especially from the standpoint of the general practitioner as to the time when these cases should be handled surgically.

Dr. H. H. Grant:—I am very much pleased to have heard Dr. Koehler's paper. It deals with a subject in which we are all interested. I have some little doubt as to whether we are careful enough in the examination of the urine, which will help us in excluding possible kidney disease. In men past fifty years of age there is often interstitial kidney disease without desquamation, and microscopical and chemical examinations of the urine often fail to show kidney disease. The increased amount of urine indicates, in many instances where there are no other evidences, that the kidneys are somewhat at fault, and I should

hesitate to recommend surgery to a man past fifty with an increased amount of urine, especially if the specific gravity was below 1,010 or 1,012.

As to the treatment of these conditions prior to operative procedure, there is no question but what there is great danger in establishing catheter life in individuals of this age, and the man of fifty-five years who has to use the catheter every two hours during the day has a condition that distresses him and he is apt to seek relief from surgical procedure; at the same time it is always to be looked upon as indicating danger and uncertainty as to the result of the operation. These operations about the perineum not only produce urinary fistula but even worse, fecal fistula, and they destroy the virility in a number of patients and in most men before sixty this is looked upon as a dire misfortune.

As to the question of the advantages of the perineal or the supra-pubic route, it seems to me that where the tumor can be felt not only through the rectum but through the perineum, it can be much more easily removed by the perineal route than by the supra-pubic. Large tumors which present easily in this direction, either by pressure of the finger or the introduction of instruments to bring the prostate down, should be preferably operated on from this direction. The advantage of the operation by the supra-pubic method is that the seminal vesicles and the ejaculatory ducts are not injured, and consequently operative measures which can be successfully performed by this method are attended by less mutilation of important structures than by the perineal method.

The indications for the operation are controlled by the condition of the patient's kidneys and the condition found in the bladder.

Dr. Koehler, (closing):—I have nothing to add.

STRANGULATED HERNIA.*

By D. C. DONAN, M. D., Three Springs, Ky.

It does look like presumption on my part to offer you anything that would be interesting on this subject, as it has been discussed for ages by the wisest and most experienced men of the profession. Think of Velpeau, Liston, Astley Cooper, Gross and others, and you are ready to call me an egotist, if not a fool backwoods physician, for attempting to teach you anything. But you must remember that Ephraim McDowell, the father of coeliotomy, was called the "Backwoods Doctor of Kentucky," by the French physicians of his day and time.

It is not with any feeling of egotism that I offer you my experience and opinion on this subject, "Strangulated Hernia," but if you will be patient with me I will relate to you something that is *new*, if not interesting and instructive.

I graduated from the Kentucky School of Medicine in March 1859, and for forty-one years have been actively engaged in the practice of medicine. During that time I have met with many cases of strangulated hernia but have never seen one that I could not reduce without an operation. This may be a little startling to you but it is nevertheless true. I have never met a physician of my age, of my experience, who could say the same except one, Dr. D. P. White, of Greensburg, Ky. It is my own conclusion that surgical interference is rarely, if ever, warranted in this disease. Under the ordinary methods of taxis, it is; under my method, it is not.

Several years ago a negro, Scott Richardson, went to Horse Cave to a show, and while drunk he was attacked by strangulated hernia. Your President, Dr. T. H. Garvin, was called to see him and after chloroforming him, failed to reduce the hernia. Doctors Edwards, Taylor and others also tried and failed. Without a surgical operation he was sent home to die. The next morning I was called to see him. Arriving at the cabin I found Dr. Taylor, with perhaps a dozen white men and negroes, sitting on the fence, and on my asking if the patient was dead, Dr. Taylor replied that he was not but soon would be. I asked him why he did not reduce the hernia, and Taylor replied that he had tried to do so and failed, and that all the doctors at Horse Cave had also tried and failed. I offered to bet my horse against ten dollars that I could reduce it in fifteen minutes but no one would wager. Dr. Taylor said when I saw the patient, I would change my opinion as it was the largest and most frightful he had ever seen, and besides, he had had stercoraceous vomiting for several hours. I found the patient, as the doctor had said, nearly dead and almost speechless and I saw I had no time to spare. Without chloroforming him I laid him on the floor while I sat on the lounge. I pulled his hips well up on my feet and ankles, while two assistants held his legs one on each side of my body, thereby placing myself between his legs, facing him, with his hips elevated on my legs and insteps in order to have all the gravity I could get in my favor. For five minutes I tried all the ordinary taxis and seeing that I would fail in the fifteen minutes if I did not change, I changed to *my* method. Being immediately in front of him between his legs, I

* Read before the Metcalfe County Medical Society, at Sulphur Well, July 2, 1905.

thrust my forefinger into the inguinal canal, pushing the intercolumnar fascia upwards; then introducing my finger on the dull edge of Gimbernat's ligament, I thrust my weight upon it, stretching or tearing it loose from the pubic bone. The negro uttered a faint cry, but the Gimbernat was stretched, and in a few minutes the great tumor was returned.

The negro had bloody discharges from the bowels the next day, as I told him he probably would, but in five days he was out at his work.

Two years ago a former slave of mine, Anderson Donan, colored, went to Dr. Garvin with a strangulated hernia, and suffering great pain. The doctor chloroformed him and failing to reduce it, sent him home with instructions to put a poultice on the tumor, which he did without relief. The next day he came to me but I was out on my rounds. He was suffering so much and was so anxious to see me, that after waiting some hours he started to meet me. He met me in the road near a house, so I procured a chair, laid him on his back, and sitting in the chair with his legs one on either side of me, his hips well up on my ankles, I reduced his hernia in ten minutes.

Another case, Mrs. R., aged eighty-one years, was equally successful.

The advantage of placing yourself between the patient's legs, is, that you can then operate on a right or left hernia with equal ease and dexterity, and also when in that position your line of force coincides with the axis of the inguinal canal and you can press back the intercolumnar fascia on either right or left side. When this is done you can often reduce the hernia without stretching Gimbernat's ligament at all, but if the hole is not large enough after pressing back the intercolumnar fascia, you have Gimbernat's ligament (which is usually the chief cause of the pain and stricture, at your mercy. Also, in milking the fecal matter back out of the sack, it can be done with more ease in this position than by other, as you can milk the contents downward and press straight from you. Besides, you have gravity in your favor all the time.

The patient should be cautioned against holding the breath and be made to breathe naturally. In preparing a man for this operation, the clothing should be removed from the lower limbs. His feet should rest on a lounge at your side, or be supported at your side by two attendants, as in this position his abdominal muscles are relaxed and offer less resistance than if he be laid on a bed with his limbs stretched out. In preparing a woman for this operation she should have a narrow band fastened around her waist; then take a large cotton or silk handkerchief and pass it

between her legs, tying one corner in the middle of her back to the band and the diagonal corner in front, just below the umbilicus, to the same band. This avoids undue exposure.

I have heretofore mentioned my method to Dr. C. T. Grinstead and to Dr. Tom Wright, of Bowling Green, and a few others, and all say it is new to them and they intend to practice it.

In the Donan method, I claim three things not heard of or practiced before by any physician, viz.:

(1). The position between the patient's limbs.

(2). The elevation of the hips on my ankles.

(3). The line of force and gravity coinciding with the axis of the canal.

CLINICAL REPORTS.

REMOVAL OF GASSERIAN GANGLION—AN OBSCURE CASE OF NERVOUS DISEASE— EXOPHTHALMIC GOITRE.

Dr. H. H. Grant:—I had hoped to present a clinical patient on whom I did an operation for removal of the Gasserian ganglion two weeks ago. But the weather is bad and I felt that it was not wise to bring out the man who is in his sixtieth year. He had suffered for the past two years with a very distressing tic-douloureux. He was subjected to an operation for removal of the infra-orbital nerve in December. He obtained relief for only two or three weeks, and when he presented himself I felt inclined to believe that the nerve had not been well removed. I did an operation in this region and I found a considerable portion of the nerve protruding from the infra-orbital foramen. This was twisted off as far back as I could reach. From this operation he obtained no relief and in ten or twelve hours his condition was as bad as ever and he clamored for relief.

About two weeks ago I undertook to do the Cushing operation. I cut down to the zygoma through the soft tissues and made a trephine opening just at the lower border of the temporal bone. I found that this man had quite a deep fossa of the skull. There was considerable delay, it took a long time in the approach, for the long continued distribution of blood to this part made it very vascular and the bleeding was quite severe when we came to deal with the soft parts before the brain was opened. There was little bleeding afterwards; the middle meningeal artery was easily avoided and the two branches of the

* Proceedings of Jefferson County Medical Society meeting of June 20, 1905.

nerve exposed readily enough, very deeply seated, and it was necessary to lift the brain up and make a good deal of pressure on it. After the nerves were exposed it was comparatively easy to expose the ganglion. After exposing the two nerves thoroughly I cut off the second division and then cut off the third and easily enough twisted the nerves out and a considerable portion of what appeared to be the ganglion came away. There was a good deal of oozing in the brain, but there was no troublesome hemorrhage after the ganglion was twisted away. There was a good deal of oozing and I felt it wise to leave an iodoform packing deep down against the foramen ovale where the meningeal artery comes through. This packing I took out at the end of 48 hours and there was no further bleeding.

This man has an area of anaesthesia all over that side of the face, and he is absolutely relieved from all pain. He had more or less paralysis of the muscles of the eyelid and was unable to close the eye, and he complains of some difficulty of seeing with that eye. He also complains of not being as strong and vigorous as he was. He was very irritable for a few days after the operation and is still more so than before the operation. Still he is quite well and is going home to-morrow.

I am disappointed in not being able to show him. The wound has healed up without any trouble at all. The patient is apparently relieved; whether permanently it is too early to say, but the history of these cases is that recurrences are very rare.

Dr. Cheatham:—It may be that irritation of the cornea causes him to be unable to close the eye.

* * * * *

Dr. Zimmerman:—I have a case that it may be of some interest to report. The history of the past course of the trouble is rather interesting to me. The patient is a woman fifty-two years of age. Her eldest child is twenty-two years old. At the time of the birth of this child she had an extensive tear and complete prolapse so that it was necessary for her to wear a bandage to support the uterus. Following this prolapse she has borne two children and never has had a miscarriage; she has never had any attack of pelvic trouble at all and no disturbance except that of the annoyance of having the organ protruding from the vagina. She has been in this condition for twenty-two years.

About a year ago she began suffering with peculiar nervous manifestations and at that time she became very anemic. She complained of paraesthesia in the hands, later in the feet also. The reflexes at this time were nor-

mal and there were no eye symptoms. She was placed on reconstructive tonics.

About three months ago she began to notice that her lower extremities were weak, as she expressed it; she slipped and fell, as she thought.

Upon close examination and questioning it was found that her ankle simply turned out, and it has occurred a number of times since. She now suffers from paraesthesia of both upper and lower extremities. In the upper extremities it has extended above the wrists and in the lower above the ankles. There seems to be no disturbance of the thermic sense and very little of sense of pain; there is anaesthesia over certain areas. In addition to this she has evidently some disturbance in the posterior columns of the cord from the peculiar gait she has, and also from the sensory symptoms which she presents. The bladder and rectum have not caused her much trouble until within the last two weeks, when she finds that the rectum particularly gives trouble with a tendency to incontinence. She claims that every time the bladder is evacuated the rectum also must be evacuated.

No specific history can be obtained and the only evidence of it is the peculiar nodular condition of the anterior border of the tibia. That is the only evidence I can find of syphilis.

Dr. Moren:—I would like to ask the doctor if the blood count was made as well as the test for haemoglobin?

Dr. Zimmerman:—It was not made.

Dr. Moren:—The only suggestion that I can make is to look out for anemia, for we have a sclerotic condition affecting both the motor and sensory tracts following pernicious anemia. Personally I have never seen a case. Quite a number have been reported in the East. If not of a pernicious type I would regard it as chronic myelitis.

Dr. Zimmerman, (closing):—I have nothing to say except that I hardly think it is pernicious anemia, as the patient is in better physical condition to-day than she was a year ago, and while no recent examination of the blood has been made, judging from the appearance of the patient I should think that the percentage of haemoglobin is much higher at the present time than it was a year ago when the examination was made.

* * * * *

Dr. Moren:—I would like to ask the question if any one has seen a goitre develop after the age of seventy in a man of previous good health and fine history? It is a typical goitre, at least in appearance; it feels like a regular exophthalmic goitre. There are no eye nor heart symptoms, but it is growing and

interfering more or less with swallowing now.

Dr. Cheatham:—How large is it now? Has it produced any pressure symptoms?

Dr. Moren:—It interferes some with swallowing. It is getting larger and pushes the collar out.

Dr. Cheatham:—It seems to me I have seen some old gentleman going around with that trouble, but I do not know what time it developed.

Dr. H. H. Grant:—Mr. President, it might be a malignant condition coming on there, or some cystic degeneration.

Dr. W. H. Wathen:—I think it is more like a beginning malignancy. Since we have brought up the question of goitre, I will briefly refer to a case under my treatment at the present time for exophthalmic goitre. I have had recently three cases. This woman is about thirty years of age. She was referred to me by Dr. Hanson, of Donaldsonville, Louisiana. She had no symptoms of goitre of any kind until about five years ago. It then followed the birth of her first child. It produced marked symptoms of the heart, exophthalmos, tremors, great nervousness, a persistent diarrhoea and great loss of flesh. Under the treatment of her physician she improved from time to time, and at one time after she had been on an exclusive milk diet for five months, she gained much flesh and became comparatively well for a while; but since she came from under the care of the physician and discontinued the milk diet the trouble recurred and during all that time she had frequent intense headaches, great difficulty in sleeping and indigestion. She could not eat vegetables, or meat without causing this bad diarrhoea. With the exception of the time she was using the milk diet the diarrhoea persisted.

She was referred to me for the special purpose of using the X-ray, and if that did not relieve it to remove the right lobe. I discontinued all internal treatment directed toward the removal of the goitre, put her on a milk diet and gave her but little solid food, continued to give her a preparation that she had been taking to control the bowels which contained some opium; and as she could not sleep more than two hours at night I gave her seven and a half grains of chloral and fifteen grains of bromide of ammonia, which gives her some six or seven hours sleep. She began improving under this treatment. I gave her 1-20 grain strychnine and 10 drops arsenauro three times daily after meals, but arsenauro was discontinued after ten days. She was given one tablespoonful after meals of Wy-

eth's glycerophosphates of lime and soda. She improved and was soon able to discontinue the remedies to produce sleep, her digestion became good, her diarrhoea was entirely cured and she could eat what she pleased, could go over the city anywhere and gained fifteen or twenty pounds in flesh. Every symptom except a little exophthalmos has been relieved. The pulse is now one hundred and sometimes under one hundred. When I first saw her it was one hundred and ten or one hundred and twenty. She is apparently practically a well woman.

I would say here that I object to giving the thyroid extract because I am convinced that this aggravates the trouble instead of benefiting it. It has been proven by men who have had experience in treating these cases that it is contraindicated, which is what we might expect when it is the absorption of the thyroid secretion that causes this trouble. Now, while it is true that this woman has improved greatly, she has determined to return in a few days to await further development. I am convinced that there will be further recurrence, that the disturbance of digestion will return and that she will be no better than she has been.

What the X-ray will do I cannot say. Dr. Jno. R. Wathen had used the X-ray about eight times and brought about a reaction; then it was discontinued for about ten days and begun again after the irritation of the skin had disappeared, and a greater reaction brought about.

Now, right here is an important question and the surgeons are interested in it. What are we to do in exophthalmic goitre where treatment ordinarily used fails to give relief? Are we to resort to our only means left, surgery? There has been little done on the subject. Mayo has done more than any one else except Kocher. I briefly described the case and corresponded with Drs. Charles Mayo, Ochsner, Deaver, Willy Meyer, Park and Keen, all of whom have done some of this work, and they advised the removal of the right lobe.

Dr. Cheatham:—It seems to me that I have seen a case of exophthalmic goitre treated with thyroid extract. There was one case on Fourth street that was very much improved by the thyroid extract.

Dr. W. H. Wathen:—All I can say is that Dr. Meyer and Dr. Mayo, and all of the surgeons I have mentioned, say that the thyroid extract makes the condition worse.

Dr. H. H. Grant:—My experience in the important treatment of exophthalmic goitre has been favorable. If we will watch these

cases we will find that they make great improvement. I cannot say that any get well. Probably the patient Dr. Wathen describes in good condition will never be any worse.

The exact pathology of the condition is still not determined. It is undoubtedly a nervous condition, due most probably to toxins. In the treatment of this condition I have used a number of preparations, something to control the irritability of the heart, something of the nature of digitalis, strophanthus, and rest of the patient, and something to control the nervousness. These patients have improved and most of them are in good physical condition to-day. As well as I can remember I have treated five cases of exophthalmic goitre, two in men and three in women. All of these patients are past fifty years of age. I believe that it is not any particular form of medication, but rest that benefits these patients.

I have had no experience with the operative procedure recommended, most of the patients I have seen having been in too bad a condition to submit to surgery; and again they get better if left alone and for that reason I have left surgery out.

Dr. Moren:—Exophthalmic goitre is an interesting subject to me. I am not in favor of operation because the mortality from removal of the thyroid gland or the nerve is greater than the mortality from exophthalmic goitre itself. Another fact is that exophthalmic goitre is much easier handled now than formerly; more cases are cured. I have one patient in this town that was very bad. This patient was cured absolutely with belladonna. I have tried it in a dozen cases since and it has done no good. Each case has been benefitted by a different drug. I now have two patients under my care and both are doing well, under digitalis. Another remedy that I have used is bluemass and I believe it is Dr. Collins who says we should give a dose of bluemass every Saturday night. They should be kept in bed, for I believe that rest is one of the best therapeutic agents that we have.

The thyroid extract is absolutely contraindicated because the trouble is caused by an increased quantity of the thyroid secretion. They are using a great deal of an anti-thyroid extract. Dr. Collins advocates its use very strongly.

Dr. H. H. Grant:—What has been your observation of the mortality?

Dr. Moren:—One patient died. I recall sometime ago I reported one patient dead and she afterward reported cured.

Dr. J. R. Wathen:—What has been the age and sex of your patients?

Dr. Moren:—More in women, age ranging from fifteen to fifty years. I have seen four or five cases in men.

Dr. J. R. Wathen:—What is the relative proportion you have had?

Dr. Moren:—Three to one in my experience. That brings up another interesting point. Did you ever see a manifestation of arterio-sclerosis with goitre? I have never seen that. You gentlemen made me feel bad when you said that the trouble might be malignant; before this developed he showed marked evidences of beginning arterio-sclerosis, and now he does not.

Dr. J. R. Wathen:—The condition of arterio-sclerosis would be a marked pathological condition that would not be relieved.

Dr. Moren:—His pulse would go as low as 55 or 60 and has been 70 and 80, and just as smooth and regular as a young man's pulse.

Dr. H. H. Grant:—Still arterio-sclerosis would not get well.

Dr. Moren:—A theory is advanced that arterio-sclerosis begins with atrophy of thyroid gland.

Dr. B. J. O'Connor:—There are just two points that I would like to bring out in regard to this disease. It has been pretty well discussed. In regard to the mortality of the disease, Prof. Fuchs, of Vienna, claims that it is more or less a self limited disease and that 50 per cent. are cured without medicinal remedies or resort to surgery. He is using a preparation like anti-thyroidine. It is an extract prepared from the testicles and suprarenal glands of animals from which the thyroid gland has been previously removed. He claims that there are certain substances in these glands that counteract the poisons and ameliorate the symptoms more than any drug that can be given in exophthalmic goitre.

Dr. Cheatham:—Dr. Grant and Dr. Wathen referred to rest in these conditions. I have a business man in mind who is considered in perfect health, who twenty-five years ago had exophthalmic goitre and he was relieved by putting him out on the farm and putting him to work. He was out on the farm for two or three years and then came back to his business.

Dr. W. H. Wathen:—What I understand about Dr. Moren's cases is that they were relieved. I am surprised at the relative proportion of males compared with females. Dr. Grant reported three females and two males. Dr. Moren reported about one fourth male

patients. Statistics show that there is but little over one male patient with Graves' disease where there are fifty females with Graves' disease. It occurs nearly always in women during the menstrual activity, beginning early and seldom beginning after the woman has changed life. Apparently it is worse or more dangerous beginning earlier than beginning later. This may be due to the relatively greater activity in the ovarian secretion in comparatively young women. It seems decided now by all our best authorities that there is a very decided relation between the ovarian secretion, the suprarenal secretion and the thyroid secretion. It has not been long since we recognized that there is an antagonism between the thyroid secretion and the suprarenal secretion. We know that the suprarenal secretion acts on the vasomotor system in one way and the thyroid secretion apparently in an antagonistic way, and the proper balance in the nutrition of the body is carried on. When the thyroid is removed, or in childhood its action is destroyed, we have myxedema because of the contraction of the capillaries and the failure in further nutrition. These are beautiful questions to study, and just here arises the question bearing upon the surgical type of the disease. If we have the thyroid secretion in excess and we have as a result of that, through some nervous influence, a disturbance of the heart because of this and a failure of the suprarenal capsule secretion to furnish a proper vasomotor force, we will find that if we cut off by surgical operation a portion of the gland we will bring about a proper equilibrium and the patient will probably get well. Now, experience in some surgical cases has sustained this view because we have made a partial resection of one lobe and we have found the patient greatly benefitted, and whenever the crippled condition of this lobe was restored to a better condition the symptoms again returned in many cases where we have removed one lobe of the gland and the other was not enlarged these patients have been cured.

You remember this is comparatively a new field. The great Kocher, who has operated on three thousand cases, has operated on only fifty for Graves' disease. The objection to an operation, as Dr. Grant says, is that these patients are in too poor a condition when the surgeon sees them. If we can take these patients and get them in proper condition the experience of our best surgeons has proved that they usually recover from the operation.

SUMMER DIARRHOEA IN INFANTS— PROPHYLAXIS AND TREAT- MENT.*

By L. B. WILKERSON, M. D., Russellville, Ky.

Diarrhoea is a term used to designate all conditions arising from an increased motor and secretory activity of the intestinal tract. It is thus but a symptom, and may be met with in every degree of severity, from a mere looseness of the bowels to a profuse watery drain exhausting the patient and resulting in death in a few hours. Infants are peculiarly susceptible to these disorders, which in them tend to run a more severe course than in older children. It is impossible in our present state of knowledge to give a satisfactory classification of diarrhoea of infants, but in this paper we will deal only with the following: acute non-infectious diarrhoeas and acute infectious diarrhoeas.

The first of these two divisions is characterized by the mildness of the attack and the rapidity with which it subsides, therefore, it need cause us but little anxiety except as to differential diagnosis. The latter, however, is the great summer trouble of infants, occurring as regularly as does the heat of summer.

Summer diarrhoea is caused by the entrance into the system, usually through some food medium, of a virulent poison which is the product of micro-organisms. Predisposing causes are age, (from birth to two years) general feebleness (from whatever cause), bad hygienic surroundings, and any interference with the barrier formed by the normal mucous membrane of the alimentary tract. Thus any influence which damages the mucous membrane is the all-important predisposing cause.

However, the uncertainty that exists as to the cause of the several forms of this disorder does not make less absolute the conviction in the minds of bacteriologists that summer diarrhoea is the result of bacterial infection and that whatever other factors are concerned are not causes per se, but are only conditions most favorable to the development of the bacteria and to the production of their poisons.

As before stated, we witness an annual recurrence of this disorder, and in such prevalence as to show that we have thus far accomplished but little in the way of its prevention.

Believing, then, that the disorder is preventable, and even curable, and realizing the main difficulties confronting us, how can we best overcome them?

First, let us in every way possible educate the laity either by personal advice to our re-

* Read before Logan County Medical Society.

spective families or by any other effectual method that may present itself.

Fortunately for the country doctor he is not confronted with the same degree of milk-infection as is his brother practitioner of the cities; however, with this in his favor he will find a broad field for prophylactic suggestions.

Milk is contaminated in the home much more frequently than is generally supposed, especially where the care of the milk and utensils is left entirely to servants.

In warm weather particular attention should be paid to the care and preparation of the infant's food, all utensils used in the preparation of the food should be sterilized daily and when possible a separate bottle should be provided for each feeding. All nipples should be scrubbed and boiled daily and should be kept, when not in use, in a solution of boric acid, or bicarbonate of soda, a teaspoonful to a pint.

During the summer it is a good rule to give infants as little food as possible. Plenty of sterilized water should be supplied in warm weather as the infant is far more likely to be thirsty than hungry. Over-feeding, too frequent feeding and the use of improper foods are important dangers to be guarded against.

The last that I would mention along prophylactic lines is pasteurization. Of course this method is recommended in the absence of a perfectly pure fresh milk, but as this so frequently is not possible it is much safer to pasteurize.

While this practice has its disadvantages, yet, according to Russell, 98 to 99.8 per cent. of all bacteria is killed without in any way interfering with the value of the fluid as a food.

TREATMENT—In all cases of this disorder air is possibly, of the greatest importance. The patient should be kept out of doors in the shadiest, coolest place possible; if this is not possible, have the sick-room cool and airy but not too bright. Next to fresh air should be placed cleanliness, quietude and the proper administration of food. Quietness is very essential as the patient is likely to be highly nervous and irritable. Do not handle or pet unnecessarily. Have the clothing of the lightest material and made so that it may be removed without disturbing the child; it should be changed whenever soiled.

Bathing is valuable in that it allays restlessness and at the same time reduces temperature. For cleanliness the child's body may be sponged with alcohol and water, but when it is desired to reduce temperature the "cold pack" or tub bath as given by Evans and Fry is to be preferred. When there is high body temperature (102-5 degrees F.) and cold extrem-

ities, they prefer the pack which is given about as follows: The mattress is to be protected by a rubber sheet or oil-cloth over which is laid a small blanket; an ordinary large towel is then wrung out of water at a temperature of 70 degrees F., and wrapped about the child's body and arms, reaching down to about the child's knees; hot-water bottle is applied to the child's feet. Cold water may be sprinkled from time to time on the towel without removing it from the child's body. To increase evaporation the child should be fanned while in pack. The patient may remain in such a pack from 15 minutes to one hour.

As soon as the body temperature is sufficiently reduced the pack should be removed, and the child put into fresh clothing with as little disturbance as possible.

When the bath is employed to reduce fever the temperature of it should be about 100 degrees F., when the child is put in. This is gradually reduced to 80 or 85 degrees by adding ice. While child is in the bath a cloth wrung out of ice water should be placed on his head and at the same time the head should be supported by the nurse and body briskly rubbed so as to promote circulation. Child should not remain in bath over twenty-five or thirty minutes. If properly and carefully given, this procedure should not frighten or exhaust the little patient.

Either the pack or bath may be repeated as often as required to control the temperature.

Much depends on diet. Digestion and assimilation are practically arrested at this time, and food, instead of being of assistance to the patient can only work harm, therefore, all foods should be carefully withheld in the early stages. For the first twenty-four or forty-eight hours nothing may be given but boiled water to which has been added a pinch of salt or a little milk sugar.

Milk should be entirely withheld in all cases, and a return to a milk diet should not be attempted for several days after the movements have become normal. Of course, the foods selected should be those which require the least effort to digest, and those which leave the minimum amount of residue. The return to the ordinary diet should be slow and very carefully regulated. The difficulty generally is to find a suitable article that the patient will like and take well.

After the period of "water diet" the question to be decided is whether to use albuminous or farinaceous fluids. It is the rule with most of the writers to employ farinaceous fluids when the motions are particularly foul, and the abdomen distended with gas. When

these conditions are not marked, resort may be had to dilute broths and other albuminous fluids such as albumin water, liquid peptonoids or panopeptones diluted in proportion to one to ten. Juice from raw beef may be given in the same proportion.

After an attack of diarrhoea the diet should be carefully regulated for months, as relapses are very easily excited by improper articles of food. Oatmeal, tomatoes, corn and most all fruits should be forbidden.

The first indication along the line of medical treatment is to evacuate the entire digestive tract. The colon may be emptied by irrigation but to clear the small intestine, cathartics such as castor oil or calomel should be resorted to. When vomiting is not marked castor oil should receive the preference as its results are fairly prompt and its after-effect soothing; if the vomiting is an initial symptom calomel should be employed as it has a favorable effect on the vomiting and is valuable both as an antiseptic and as a purgative.

My way of giving calomel is in very small doses often repeated. As a rule I give from gr. 1-10 to gr. 1-4 every 15 or 30 minutes till eight or ten doses are given or one dose every hour till the characteristic green motion appears.

The value of antiseptics in this disorder is open to question. In my limited experience I can not claim any great faith in those employed. Salol, resorcin, the sulpho-carbonates, carbolic acid and several others have all given about equal results.

Of all the drugs that have ever been tried for this disorder, I think bismuth is undoubtedly the most useful, the most reliable preparation probably being the sub-nitrate.

Arsenate of copper is useful in the latter stages after the temperature has fallen and the stool is no longer offensive.

Dilute sulphuric and hydrochloric acid are of distinct value in chronic cases. They are best given with a digestive shortly after food.

Alkalies are of value, of course, when the stools are strongly acid and cause excoriations. In some cases they tend to alleviate vomiting; the most valuable are lime-water, magnesia, and chalk mixture.

Opium is indicated in those cases where tenesmus, pain and great frequency of movements are marked, but it should be withheld in any form until the intestinal canal has been cleared by purgation or by irrigation. Paregoric continues to be the popular preparation for infants.

Stimulants are of great value when used wisely. Alcohol stands at the head, whiskey or brandy being the best forms.

CHOLERA MORBUS.*

By R. F. DUNCAN, M. D., Tompkinsville, Ky.

Cholera morbus is variously described as sporadic cholera, English cholera, cholera nostras, and bilious cholera. It is an acute inflammation of the mucous membrane of the stomach and intestines. It comes on suddenly, characterized by violent abdominal pains, almost continuous vomiting and purging, cold, clammy surface, rapid, feeble pulse, spasmodic contractions of the muscles of the abdomen and extremities, especially the calves of the legs, and prostration.

Causes—Sudden changes in the temperature and the presence of irritants in the digestive tract, such as results from decomposition of food—most apt to be unripe fruit and vegetables—are the most common causes.

Pathologic Anatomy—I really know nothing of pathological anatomy; therefore, I refer you to the standard works for any desired information in regard to it.

Symptoms—The onset is sudden, violent, and comes on in the night, usually after midnight, and if perchance you should be called in the forenoon you will usually find that the patient was attacked about midnight or between that hour and four o'clock A. M., and the reason you were not sent for earlier, "Had nobody to send." By that time you will find the patient with a husky voice, weak and whining.

The attack is ushered in by chilliness and abdominal colicky pains. The vomited matter at first consists of the ordinary contents of the stomach but is soon replaced by bilious material, and later almost pure water. Likewise, the stools at first consist of feces, then bilious and finally the characteristic "rice water" discharges of Asiatic cholera. The stools are very frequent and often almost continuous. The skin is cold and bathed in a clammy sweat, and in severe cases, intense muscular cramps of the extremities are present. The pulse is small and feeble and there is intense thirst. The patient rapidly becomes weak and emaciated, the skin and muscles in a few hours appearing to be almost set to the bones, and the features are anxious, pinched and shrunken. Collapse may occur.

Diagnosis—The main distinguishing difference between Asiatic cholera and cholera morbus, is, that the former is due to the presence of a specific cause (the comma bacillus of Koch) while the latter is due to sudden changes of temperature and the presence of irritants in the digestive tract, as heretofore described.

Tartar emetic, elaterium, or any other ir-

* Read before the Monroe County Medical Society.

ritant poison, may produce symptoms almost identical with cholera morbus, and can only be distinguished by the history and the detection of the cause.

Prognosis—The outlook is favorable in most cases. The mortality in all grades is said to be about five per cent. Extreme age, either young or old, has an unfavorable influence. The painful stage rarely lasts longer than a few hours, but in the mildest cases it requires from four to eight days to regain the usual health. In some cases it is said that recovery is tedious but I have never seen one of that type.

Treatment—Being called up somewhere between 12 and 3 o'clock in the night in June, July or August, the messenger tells you excitedly that "Pap wants you to come to see him just as quick as ever you can git thar—he waked up a pukin' and a runnin' off and is crampin' to death, and if you don't come and come quick, he won't be alive when you git thar. He said tell you the money is waiting for you and for you not to spare horse flesh."

While you are dressing you make a diagnosis of cholera morbus and it is nine to one that you will find on your arrival, that you are correct. You reach for your hypodermic, and give morphia sulphate 1-4 grain and atropia sulphate grain 1-150, and set all those present to using hot mustard poultices, plasters, stupes—in fact everything you can think of to keep them busy for twenty or thirty minutes until the hypodermic has time to get in its work. If your hypodermic should fail to bring relief within twenty or thirty minutes, you should repeat it.

Morphine has the happiest effect in this disease of any I have ever used it in, never failing in my hands, to give perfect relief after the second dose. I rarely ever give the second dose and never have been required yet to give the third.

The storm over, the situation approaches the normal again. Then the patient tells how near he came to dying, and says if it had not been for that hot red onion poultice he feels quite sure he would have died, while each attendant tells of the heroic part he played, all of them agreeing that they never did believe that "picking medicine in the arm done any good," and now they know it.

After my patient is perfectly quiet, I consider him cured so far as medication is concerned. Careful dieting for a few days, with possibly a laxative, constitutes my after treatment. The depression, if very great may be relieved by small and repeated doses of brandy or whisky. Small bits of ice swallowed whole will overcome the intense thirst to some extent. If the vomiting and purging

should continue, use something like the following: Bismuth subnitrate 20 grains, acid carbolic 1-6 grain, glycerine 20 minims, water four drachms. Give at a single dose and repeat every hour. Always give the dose just after a severe effort at vomiting, because the patient cannot vomit any more for a few minutes and your dose has more time thereby to come in contact with the mucous lining of the stomach. If you should fail in this, then give an enema of chloral grains 20, tincture opium deodorized drops 25. This is supposed to act in such a way as to enable the patient to retain the bismuth mixture. If this combination should fail to bring the needed relief to my patient, and he be still alive, I would then advise him to send for a doctor.

UNITY, PEACE AND CONCORD.*

Abstract of a Farewell Address to the Medical Profession of the United States.

By WILLIAM OSLER, M. D.

On this occasion I have had no difficulty in selecting a subject on which to address you. Surely the hour is not for the head but for the heart, out of the abundance of which I may be able to express, however feebly, my gratitude for the many kindnesses I have received from the profession of this country during the past twenty-one years, and from you, my dear colleagues of this state and city, during the sixteen years I have dwelt among you. Truly I can say that I have lived my life in our beloved profession—perhaps too much! But whatever success I have had has come directly through it, and my devotion is only natural. Few men have had more from their colleagues than has fallen to my lot. * * *

I have studied to be quiet and to do my own business, and to walk honestly toward them that are without, and one of my chief pleasures has been to work among you as a friend, sharing actively in your manifold labors. But when to the sessions of sweet, silent thought I summon up the past, not what I have done, but the many things I have left undone, the opportunities I have neglected, the battles I have shirked, the precious hours I have wasted—these rise up in judgment. * * *

Nothing in life is more glaring than the contrast between possibilities and actualities, between the ideal and the real. By the ordinary mortal, idealists are regarded as vague dreamers, striving after the impossible, but in the history of the world how often have they gradually molded to their will conditions the most adverse and hopeless! They alone furn-

* Journal A. M. A., August 5, 1905, California State Journal, September, 1905.

ish the *Gist* that finally animates the entire body and makes possible reforms, and even resolutions. Imponderable, impalpable, more often part of the moral than of the intellectual equipment, are the subtle qualities so hard to define, yet so potent in every-day life by which these fervent souls keep alive in us the reality of the ideal. Even in a lost cause, with aspirations utterly futile, they refuse to acknowledge defeat, and, still nursing an unconquerable nope, send up the prayer of faith in the face of a scoffing world. Most characteristic of aspirations of this class is the petition of the Litany in which we pray that to the nations may be given "unity, peace and concord." Century after century from the altars of Christendom this most beautiful of all prayers has risen from lips of men and women, from the loyal souls who have refused to recognize its hopelessness, with the war drums ever sounding in their ears. The desire for unity, the wish for peace, the longing for concord, deeply implanted in the human heart, have stirred the most powerful emotions of the race, and have been responsible for some of its noblest actions. It is but a sentiment, you may say; but is not the world ruled by feeling and by passion? What but a strong sentiment baptized this nation in blood, and what but sentiment, the deep-rooted affection for country which is so firmly implanted in the hearts of all Americans, gives to these states to-day unity, peace and concord? As with the nations at large, so with individuals, and as with our profession, so with its members, this fine old prayer for unity, peace and concord, if in our hearts as well as on our lips, may help us to realize its inspirations. What some of its lessons may be to us will be the subject of my address.

UNITY.

Medicine is the only world-wide profession, following everywhere the same methods, actuated by the same ambitions and pursuing the same ends. This homogeneity, its most characteristic feature, is not shared by the law and not by the church, certainly not in the same degree. * * * There is a unity, too, in its aims—the prevention of diseases by discovering their causes, and the cure and relief of sickness and suffering. In a little more than a century a united profession working in many lands has done more for the race than has ever before been accomplished by any other body of men. So great have been these gifts that we have almost lost our appreciation of them. Vaccination, sanitation, anesthesia, antiseptic surgery, the new science of bacteriology, and the new art in therapeutics have effected a revolution in our civilization to which only can be compared the extraordinary progress in the mechanical arts.

* * *

One often hears as a reproach that more has been done in the prevention than in the cure of disease. It is true, but this second part of our labors has also made enormous progress. We recognize to-day the limitations of the art, we know better the diseases curable by medicine, and those which yield to exercise and fresh air; we have learned to realize the intricacy of the processes of disease, and have refused to deceive ourselves with half knowledge, preferring to wait for day instead of groping blindly in the dark or losing our way in the twilight. The list of diseases which we can positively cure is an ever-increasing one, the number of diseases the course of which we can modify favorably is a growing one; the number of incurable diseases (which is large, and which will probably always be large) is diminishing—so that in this second point we may feel that not only is the work already done of the greatest importance, but that we are on the right path, and year by year as we know disease better we shall be able to treat it more successfully. * * *

A powerful stimulus in promoting this wide organic unity is our great international gatherings, not so much the international congress of the profession, which has proved rather an unwieldy body, but of the special societies which are rapidly denationalizing science. * * * It should be a source of special pride to American physicians to feel that the national association of this country—the American Medical Association—has become one of the largest and most influential bodies of the kind in the world. We cannot be too grateful to men who have controlled its course during the past ten years. The reorganization so efficiently carried out has necessitated a readjustment of the machinery of the state societies, and it is satisfactory to know that this meeting of our state society, the first held under the new conditions, has proved so satisfactory. But in the whole scheme of readjustment nothing commands our sympathy and co-operation more than the making of the county societies the materials out of which the state and national associations are built. * * *

In this country reciprocity between the state licensing boards remains one of the most urgent local needs. Given similar requirements, and examinations practically of the same character, with evidence of good character, the state board should be given power to register a man on payment of the usual fee. It is preposterous to restrict in his own country, as is now done, a physician's liberty. * * * International reciprocity is another question of equal importance, but surrounded

with greater difficulties, and, though a long way off, it will come within this century.

The second urgent need is a consolidation of many of our medical schools. Within the past twenty-five years conditions have so changed that the tax on the men in charge of the unendowed schools has become even more burdensome. In the old days of a faculty with seven professors, a school with 300 students was a good property, paying large salaries, but the introduction of laboratory and practical teaching has so increased the expenses that very little is now left for distribution at the end of the year. The students' fees have not increased proportionately, and only the self-sacrifice and devotion of men who ungrudgingly give their time, and often their means, save a hopeless situation. A fusion of the schools is the natural solution of the problem. * * *

And the third desideratum is the recognition of our homeopathic brethren that the door is open. It is too late in this day of scientific medicine to prattle of such antiquate nonsense as is indicated in the "pathies." We have long got past the stage when any "system" can satisfy a rational practitioner, long past the time when a difference of belief in the action of drugs—the most uncertain element in our art!—should be allowed to separate men with the same ambitions. It is not as if our homeopathic brothers were asleep—far from it—they are awake—many of them, at any rate—to the importance of the scientific study of disease, and all of them must realize the anomaly of their position. It is distressing to think that so many good men live isolated, in a measure, from the great body of the profession. The original grievous mistake was ours—to quarrel with our brothers over infinitesimals was a most unwise and stupid thing to do. That we quarrel with them now is solely on account of the old Shibboleth under which they practice. Homeopathy is as inconsistent with the new medicine as is the old-fashioned polypharmacy, to the death and destruction of which it contributed so much. The rent in the robe of Aesculapius, wider in this country than elsewhere, could be repaired by mutual concessions—on the one hand by the abandonment of special designations, and, on the other, by an intelligent toleration of therapeutic vagaries which in all ages have beset the profession, but which have been mere flies on the wheels of progress.

PEACE.

The physician, like the Christian, has three great foes—ignorance, which is sin; apathy, which is the world, and vice, which is the devil. * * * Education of the public of a much more systematic and active kind is

needed. The congress on quackery, which is announced to take place in Paris, with some twenty-five subjects for discussion, indicates one important method of dealing with the problem. The remarkable exhibit held last year in Germany of everything relating to quacks and charlatans did an immense good in calling attention to the colossal nature of the evil. A permanent museum of this sort might well be organized in Washington in connection with the Department of Hygiene. * * * One effective measure is enforced in Germany. Any proprietary medicine sold to the public must be submitted to a government analyst, who prepares a statement (as to its composition, the price of its ingredients, etc.), which is published at the cost of the owner of the supposed remedy in a certain number of the daily and weekly papers.

By far the most dangerous foe we have to fight is apathy—indifference from whatever cause, not from a lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction. Fully 25 per cent of the deaths in the community are due to this accursed apathy, fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. * * * Western civilization has been born of knowledge won by hard, honest sweat of body and brain, but in many of the most important relations of life, the lesson of human efficiency is being taught us by one of the little nations of the earth, which has so far bettered our instruction that we must again turn eastward for wisdom.

Against our third great foe, vice in all its forms, we have to wage an incessant warfare, which is not less vigorous because of the quiet, silent kind. Better than anyone else the physician can say the word in season to the immoral, to the intemperate, to the uncharitable in word and deed. * * *

CONCORD.

Unity promotes concord—community of interests, the same aims, the same objects give, if anything can, a feeling of comradeship, and the active co-operation of many men, while it favors friction, lessens the chances of misunderstanding and ill will. One of the most gratifying features of our professional life is the good feeling which prevails between the various sections of the country. * * * Men will tell you that commercialism is rife, that the charlatan and the humbug were never so much in evidence, and that in our ethical standards there has been a steady declension. These are the Elijahs who are always ready to pour out their complaints, mourning that they are not better than their fathers. Few men have had more favorable

opportunities than I have had to gauge the actual conditions in professional private life, in the schools and in the medical societies, and as I have seen them in the past twenty years I am filled with thankfulness for the present and with hope for the future. The little rift within the lute is the absence in many places of that cordial professional harmony which should exist among us. * * * I am sorry to say the professors have often been the worst offenders, and the rivalry between medical schools has not always been friendly and courteous. * * * It makes a very bad impression on the public, and is often a serious stumbling block in the way of progress. Only the other day I had a letter from a most intelligent and appreciative layman who was interested in a large hospital scheme about which I had been consulted. I quote this sentence from it in sorrow, and I do so because it is written by a strong personal friend of the profession, a man who has had long and varied experience with us: "I may say to you that one of the distressing bewilderments of the layman who only desires the working out of a broad plan is the extraordinary bitterness of professional jealousy between not only the school men and non-school men themselves, and the reflections which are cast on one another as belonging to that clique, which makes it exceedingly difficult for the layman to understand what way there is out of these squabbles."

The national and special societies, and particularly the American Medical Association, have brought men together and have taught them to know each other and to appreciate the good points which at home may have been overlooked. * * *

So far as my observation goes, there are three chief causes for the quarrels of doctors. The first is the lack of proper friendly intercourse by which alone we can know each other. It is the duty of the older man to look on the younger one who settles near him, not as a rival, but as a son. He will do you just what you did to the old practitioner, when, as a young man, you started—get a good many of your cases; but if you have the sense to realize that this is inevitable, unavoidable, and the way of the world, and if you have the sense to talk over, in a friendly way, the first delicate situation that arises, the difficulty will disappear and recurrences may be made impossible. The young men should be tender with the sensibilities of their seniors, deferring to their judgment and taking counsel with them. If young graduates could be taken more frequently as assistants or partners, the work of the profession would be much lightened, and it would promote amity and good fellowship. * * * After

all, the attitude of mind is the all-important factor in the promotion of concord. * * *

The second great cause is one over which we have direct control. The most widespread, the most pernicious of all vices, equal in its disastrous effects to impurity, much more disastrous often than intemperance, because destructive of all mental and moral nobility, as are the others of bodily health, is uncharitableness—the most prevalent of modern sins, peculiarly apt to beset all of us, and the chief enemy to concord in our ranks. Oftentimes it is a thoughtless evil, a sort of tic or trick, an unconscious habit of mind and tongue which gradually takes possession of us. * * * We have lost our fine sense of the tragic element in this vice, and of its debasing influence on the character. It is interesting that Christ and the apostles lashed it more unsparingly than any other. * * *

And the third cause is the wagging tongue of others who are too often ready to tell tales and make trouble between physicians. There is only one safe rule—never listen to a patient who begins with a story about the carelessness and inefficiency of Dr. Blank. Shut him or her up with a snap, knowing full well that the same tale may be told of you a few months later. * * * Sometimes it is impossible to check the flow of imprecation and slander, and then apply the other rule—* * * —never believe what the patient tells you to the detriment of a brother physician, even though you may think it to be true.

To part from the profession of this country and from this old faculty, which I have learned to love so dearly, is a great wrench, one which I would feel more deeply were it not for the nearness of England, and for the confidence I feel that I am but going to work in another part of the same vineyard, and were it not for the hope that I shall continue to take an interest in your affairs and in the welfare of the medical school to which I owe so much. It may be that in the hurry and bustle of a busy life I have given offense to some—who can avoid it? Unwittingly I may have shot an arrow o'er the house and hurt a brother—if so, I am sorry, and I ask his pardon. So far as I can read my heart I leave you in charity, with all. * * * And I would give to each of you, my brothers—you who hear me now, and to you who may elsewhere read my words—to you who do our greatest work laboring incessantly for small rewards in towns and country places—to you the more favored ones who have special fields of work—to you teachers and professors and scientific workers—to one and all, throughout the length and breadth of the

land—I give a single word as my parting commandment:

"It is not hidden from thee, neither is it far off. It is not in heaven that thou shouldst say, 'Who shall go up for us to heaven, and bring it unto us that we may hear it and do it?' Neither is it beyond the sea that thou shouldst say, 'Who shall go over the sea for us and bring it unto us that we may hear it and do it?' But the word is very nigh unto thee, in the mouth and in thy heart, that thou mayest do it—Charity."

ECTOPIC GESTATION.*

By C. G. DAUGHERTY, M. D., Paris, Ky.

Gentlemen and Ladies, Fellow Physicians of the Bourbon County Medical Society:

The inspiration for the rashness of this essayist in presenting to your attention this afternoon the subject of ectopic gestation is the outcome of a case seen during the illness of Dr. Kenney and later operated on by him assisted by Dr. Fithian and the writer. Whether the happy outcome of the case, the history of which Dr. Kenney presents, was due to our prompt intervention, the resistance of the patient, or that special Providence that seems to watch over some of our cases, I leave to you.

I will not discuss the etiology: whether from disease of the lining membrane of the tube having impaired the cilia of the epithelium as a result of chronic salpingitis; "developmental fault," polypi, tumors within or without the tube; for certain it is that some times no lesion is found to account for the phenomena.

Extra-uterine or tubal pregnancy, or ectopic gestation, may occur in the uterine end, middle portion of the tube; whence it is called interstitial, infundibular or ampullar. Gestation may be interrupted in the tube the ovum perishing and being absorbed, form an haematoma—or pyosalpinx, or persisting undergo adipoceration or form a lithopedion. The ovum may be discharged, in the interstitial form, into the uterus, from the free end of the tube into the peritoneal cavity, with or without serious hemorrhage or symptom. It may remain in situ until full term and until spurious labor comes on. But the most common symptom which calls our attention to the case is rupture of the tube depending upon the thinning of its walls from distention. This accident occurs in the interstitial variety commonly before the fifth month, but earlier in the other varieties: before the end of the third and second respectively.

Rupture may take place between the layers of the broad ligament with the formation of an haematoma and the hemorrhage be thus controlled. This may be absorbed, form a pelvic abscess, or the foetus become mummified, undergo adipoceration or form a lithopedion.

If the ovum be not destroyed by the rupture it may continue to develop within the new formed cavity until full term, or again causing rupture this time of the broad ligament (and usually with hemorrhage fatal within twenty-four hours). If the woman survive the shock and hemorrhage or peritonitis, and if the ovum be not deprived of its membranes it may continue to develop in this new formed matrix, the placenta remaining in situ in the tube or, having contracted adventitious attachment to neighboring pelvic organs, constitute that form entitled "Abdominal Pregnancy."

Tubal abortion usually occurs in the early weeks of pregnancy, and is frequently the cause of the hemorrhage into the tube following the discharge of the ovum, but may not give symptoms enough to call attention to this cause and only be discovered in operation for supposed salpingitis, when an haematoma-salpinx is found, the ovum and blood having been absorbed by the peritoneum. The most alarming symptoms however usually follow rupture of the tube into the general peritoneal cavity, when the hemorrhage is very profuse and without means of being checked unless perchance the ovum should plug the rent in the tube.

The diagnosis of tubal pregnancy is rarely made except from the accidents incident to it, and while text books tell us of periodical pains and discomfort in the epigastrium, and pains in one side of the pelvis due to contraction of the uterus and disturbance within the gestation sac, we are not likely to think of these in that connection. A woman may be taken suddenly ill without having had the least suggestion of pregnancy; again the mammary, vaginal, cutaneous and gastro-intestinal symptoms may be the same as in normal pregnancy, but are usually less pronounced. Amenorrhoea is less frequent in tubal than normal pregnancy and irregular bleeding, especially with the discharge of shreds, in a woman supposed to be pregnant should always excite suspicion and lead to an examination: vaginal, for physical signs and microscopical, for the decidual cells. The enlarging uterus does not follow the same uniform rule as to enlargement as in normal pregnancy and the mass develops more on one side until after the fifth month when it becomes more symmetrical. The foetal heart and ballotment may

* Read before the Bourbon County Medical Society at Millersburg, Ky., August 14, 1905.

be both obtained at the usual time, either before or after rupture of the tube. Thus far we have for diagnosis: the symptoms of pregnancy, a tubal or pelvic tumor (said to have peculiar soft feel), a slightly enlarged, though not pregnant uterus, discharge of decidual tissue, history of the discharge of the same with menstrual irregularity.

We are fortunate indeed if we happen to make a diagnosis at this time; *but what concerns us most are the accidents of tubal pregnancy by which usually our attention is first called to a case.*

The symptoms depend upon the site of rupture; if into the broad ligament and the hemorrhage is small, we may have only slight pain and the patient have recovered from the hemorrhage before we see her; if large, we shall find a tubal tumor of considerable size and pushing the uterus to one side; if very large, dissecting behind the rectum and causing pain on detecation, retention of urine with severe pain referred to the entire pelvis and back. If the foetus (or ovum) survives and continue to develop, and secondary rupture occurs into the peritoneal cavity, the symptoms will be the same as if that had primarily occurred: namely, a sudden seizure with a pain in one side, a sensation as if "something had given way" and as if "struck down," followed by a very acute anemia, faintness, even delirium or convulsions and collapse.

These are the typical text book symptoms, quoted from Penrose and Musser, but we may find either from tubal rupture or tubal abortion, as in Dr. Kenney's case, a history of very indefinite pain; and yet find as in this case a quantity of blood free in the peritoneal cavity without any means for nature to control the hemorrhage, and giving but little physical signs, since no haematoma was present in the broad ligament; no tubal enlargement found either on palpation or operation, only indefinite fluctuation, due to the haematocoele and slight dullness in the flanks on percussion.

Then if a woman who thought herself pregnant is suddenly seized with a pain in the side followed by anemia and shock, tubal pregnancy should be suspected. If bi-manual examination reveals the haematoma or haematocoele in the pelvis with tubal enlargement, the diagnosis may be made. This is confirmed by finding the decidual cells in the cast-off membrane or blood; and especially with the history of menstrual irregularity during the period of pregnancy and a history of previous discharge of shreds.

In differential diagnosis we have to consider: (one), normal pregnancy with the uterus to one side with tubal or ovarian enlargement from other causes; (two), salpin-

gitis; (three), a ruptured ovarian abscess either free into the cavity or into the broad ligament; (four), pelvic abscess with or without temperature; (five), miscarriage.

The first is self explanatory; for the second I have known numerous able gynecologists to operate, finding ectopic gestation when salpingitis was expected and vice versa; as to the third, I have known an abscess to rupture giving the complete picture of tubal rupture, although the previous history seemed to settle the diagnosis, temperature and inflammation having preceded; fourth, a pelvic abscess from the history of the case might be taken for an haematoma and fifth, miscarriage with severe pain in the pelvis, cystic ovaries or salpingitis followed by pelvis abscess, presents a picture worth considering. Curettage will usually have settled the latter before the occurrence of the sequelae which would interdict the employment, being careful however that we are not interrupting normal gestation.

As to treatment, as most surgeons say about appendicitis, there is no medical, nor expectant, only surgical.

Prompt laparotomy should be done in suspected cases as we do in all gross disease of the tubes. Immediate celiotomy should be performed without waiting to stimulate or for reaction in cases of tubal rupture on general principles of good surgery to arrest hemorrhage, stimulating and transfusing if necessary while operating.

As to the route employed for cases with haematoma or haematocoele, it would seem wisest to make vaginal section first in order to prevent opening a case of pelvic abscess (in case of mistaken diagnosis) into the general peritoneal cavity; this alone will suffice in case of haematoma if we are sure by palpation that there is no mass higher up; for well do I remember a case in which Studdiford, of New York, opened two sacs in the broad ligament, evacuated clots but found to his sorrow, at autopsy several days later, a four months' foetus lying in another sac along the broad ligament; so that it would seem wise to explore in most cases unless danger from infection after opening below precluded.

The treatment of abdominal pregnancy with removal of foetus or child and packing of the gestation sac without removal of the placenta unless the foetus is dead, may be mentioned only in passing.

However, in excluding expectant treatment it may be mentioned that there is no case however desperate that may not recover without surgical intervention as in a case of rupture into the general peritoneal cavity related to me as seen by Vance, of Louisville, which he regarded as practically moribund, yet transfused and saw recover after absorb-

ing a mass of intra-peritoneal blood clots and going through general peritonitis. Yet prompt surgical intervention under the most unfavorable surroundings will undoubtedly save many wives and mothers.

PROGRESS OF DISEASES OF THE EYE, EAR, NOSE AND THROAT.

Under charge of ADOLPH O. PFINGST, M. D., Louisville, Ky.

THE PROPER POSITION OF THE PATIENT IN THE OPERATION FOR THE REMOVAL OF ADENOIDS UNDER GENERAL ANESTHESIA.

By C. R. HOLMES, M. D., Cincinnati, Ohio.
(*Laryngoscope*, May, 1905.)

The following rules are adopted by the author as a guide in selecting the anesthetic in operating for adenoids: In children under two years of age no anesthetic is used, the adenoids being crushed with the finger. In children from two to fourteen years chloroform is employed, and beyond the age of fourteen the operation is performed under local anesthesia by means of cocaine. Holmes employs a method of anesthesia for which he claims advantage over the Continental method of having the patient erect with hands and feet held by an assistant and over the English method of nanging the head over the end of the table. It is now generally understood that the German or upright position is unsafe in chloroform anesthesia, the heart being sufficiently burdened with this cardiac depressant anesthetic without compelling it to pump blood against the force of gravity to the vital centers in the medulla. The danger of inspiring blood into the larynx and trachea, producing dangerous immediate symptoms or a later inspiration pneumonia, is to be considered in operating in the upright position. In addition to these disadvantages it is impossible in the upright position to appreciate the amount of hemorrhage accompanying the operation, much of the blood passing into the stomach.

Considering the "handing head" position, the author finds no objection to it in respect to the safety of the anesthetic but he considers the position one of extreme awkwardness for the operator. Owing to the congestion due to bending of the neck, and the prolonged operation due to the awkward position, the hemorrhage is necessarily great. It produces a ghastly picture, the blood running through the nostrils over the face. By his method the author endeavors to avoid the disadvantages of these two positions by employing a method that is simple, natural and safe for the patient and convenient and satisfactory to the surgeon. The method is described as follows:

The foot of the operating table is elevated

upon blocks eight inches high so that the patient's feet will be slightly but distinctly above the level of the head. The child after a thorough preparation, both for the general anæsthetic, and to secure as thorough asepsis as possible, is brought to the operating room and anæsthetized in the recumbent position. While passing under the influence of the chloroform its scalp is done up firmly in a towel wrung out of an antiseptic solution so that, on the one hand, the hair will not fall over the face or touch the operator's hands, should it be necessary to shift the position of the head, and on the other hand, that it may not be accidentally soiled with blood. When complete anæsthesia is obtained, the chloroform mask is removed and the mouth gag introduced and while the child is still lying upon its back, the hypertrophied faucial tonsils, if they are present, are liberated by a blunt dissector from any adhesions which may bind to the faucial pillars. When this has been thoroughly done, it is usually necessary to give a few whiffs more of the anæsthetic so as to prolong the anæsthesia through the subsequent removal of the adenoids. The child is then quickly turned upon its left side, the left arm and shoulder drawn back so that the former lies on the table behind the child, the right arm is grasped near the shoulder joint by an assistant on the opposite side of the table, who lifts that half of the shoulder girdle away from the chest so as to secure ample breathing space, and at the same time to steady the child, the mouth gag is re-introduced into the right side of the mouth by the principal assistant who manages the gag and slightly extends and steadies the head, the face is brought even with the left edge of the table or even slightly over the edge and the operator, equipped with an electric forehead mirror and seated on a stool of medium height on the left side of the table, removes the adenoid hypertrophy, quickly and thoroughly with the Gottstein curette or some modification of that instrument, and subsequently examines the naso-pharynx with the index finger of the left hand and removes with curved scissors and forceps any shreds or tags of the growth, or of the pharyngeal mucous membrane that may have been stripped up, as may rarely occur. The faucial tonsils are then removed if necessary with the cold snare or, if soft and ragged, with the curette, the adenectomy having been thoroughly done so quickly as to allow an ample margin of time for a double tonsillectomy before the patient emerges from under the influence of the anæsthetic. As soon as the hemorrhage ceases, the patient is rolled over into the supine position, the left cheek cleaned from the few flecks of blood that are upon it,

the towel removed from the head, and he is carried to his bed from which he is released the next day, to remain in his room in the hospital for three or four days. At the end of this time, all danger from a possible secondary hemorrhage is over and a healthy granulating surface has covered the wound and can resist to the utmost any accidental infection that might be encountered in the street or in the home.

This method has been employed about a thousand times by Holmes and found eminently satisfactory in all respects. He reports no ill effects and has had no death. The author formerly encountered alarming symptoms that interfered with the thoroughness of the operation, but since Merks "rectified and redistilled chloroform" is used exclusively his sense of security has been much greater.

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THE TREATMENT OF CHRONIC NASAL CATARRHS WITH SULPHUR.

By LOUIS KOLIPINSKI, M. D., Washington, D. C.

(*Medical News*, August 12, 1905.)

The author believes that sulphur meets many of the requirements of a therapeutic agent in the treatment of chronic nasal catarrh. It is a styptic, dessicant, astringent, germicide and paracide and serves to mitigate and cure those chronic nasal conditions which prey upon the weak and unresisting constitutions. Although the agent has never received a complete or perfect study, and its medical properties have never been carefully considered, it is known to be a non-poisonous antiseptic and preservative. It has a marked healing power when used locally. The drug is best applied in a powder, the solution being more irritating and objectionable in color and odor. The best preparation is the official sulphur præcipitatum U. S. P.

In treating the several forms of chronic nasal catarrh, it is the custom of the writer to have the patient seated with head erect and mouth open. The anterior nasal cavity is exposed with a speculum, the tip of the nose elevated and the sulphur freely and thoroughly blown in with a strong powder blower. This has been properly done when the powder appears from mouth and opposite nostril and an irritative cough results. The treatment is repeated upon the other side. The posterior nasal space and nasopharynx may also be treated directly by way of the floor of the nose or fauces. These procedures are not entrusted to the patient unless unusually attentive to his own case. They are made two or three times a week for a month and once a week for the next two months. The local sensations of sulphur are not unpleasant. Occasionally in women it sets up

a conjunctival hyperemia when used too profusely or accidentally blown upon the face, and in some females nasal irritation and pain are complained of. Then it is best to use the treatment but once a week. Except these minor objections the writer has seen none but beneficial results. With this method a considerable number of cases have been cured and the results seem uniform. Success of course requires a suitable selection, those in which there is no other primary nasal disease, deflection, deformity or growth requiring surgical methods.

The treatment seems best adapted to the simple chronic form of rhinitis. It lessens the nasal discharge, the purulent exudate becomes less, the intermittent nasal occlusion ceases and the dull frontal headache disappears. In atrophic conditions the treatment does not give such results as are obtained in the treatment of the hypertrophic variety, but even in those cases much good can be accomplished, especially in a preventive way. The immediate effects of the sulphur are to check the purulent irritating nasal discharge, heal the excoriation, etc.

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SYMPTOMATOLOGY OF ACUTE OTITIS IN CHILDREN.

By CHARLES GILMORE KERLEY, M. D., New York.

(*New York Medical Journal and Philadelphia Medical Journals*, July, 1905.)

Kerley believes that there is no other disease of children so frequently overlooked as acute otitis, because of its indefinite manifestations and partly on account of the faulty teachings as to the symptomatology of the disease. Most text books lay stress upon earache as a prominent symptom of acute otitis, most of them teaching that there is invariably some manifestation of pain located in the ear or in the adjacent structures in all cases of acute otitis in infants and young children. The author on the other hand is, from his observation of a number of cases, led to the belief that the elevation of the temperature above the normal is the only constant symptom in these cases. In seventy-two cases seen by him every child had fever. There was no special temperature characteristic of the temperature range.

In some there was the morning drop and the evening rise. With but few exceptions the otitis developed during the convalescence of an acute process elsewhere; and the ear involvement was suspected because of a persistent elevation of the temperature for which no other cause could be discovered. The fact that fifty-eight of the cases, or eighty-one and a half per cent. occurred with, or followed non-specific, inflammatory conditions of the

upper respiratory tract, such as amygdalitis, grippe, and catarrhal cold, emphasizes the necessity for frequent aural examination during or following such disorders: particularly when there is an elevation of the temperature—a temperature which, in the absence of definite clinical signs, we are apt to look upon as possibly due to chronic grippe, malaria, typhoid fever, or dentition.

The author further made the interesting observation that in fifty of his cases, or sixty-nine per cent. there was an entire absence of pain or localized signs by manipulation. He included in his cases with pain, those children who were restless and those who slept poorly, as well as those who evidenced great discomfort. In those cases without pain the dropping of the temperature to normal and the improvement in the general condition of the children would lead to the assumption that the trouble resided in the ear. Had it been left for the pain and tenderness of the parts to make a diagnosis, a large per centage of the author's cases would have been overlooked.

The records of these seventy-two cases tell us that we have not completed our examination of sick children until a thorough examination of the condition of the middle ear has been made.

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TREATMENT OF INFECTED OTITIS MEDIA.

By J. G. HUIZIEGA, M. D., Grand Rapids, Mich.

(*American Medicine*, August 19, 1905.)

The impression is daily growing stronger with the author that a pure and simple uncomplicated otitis media is a very rare thing. He believes that the eustachian tube is always more or less involved in the inflammatory process and that the mastoid cells are also commonly affected. These complications may not be sufficiently marked to demand radical and direct treatment, yet the infection may lay the foundation for what in after years may become sufficiently serious to endanger life. In other words, an attack of otitis may affect the mastoid membrane, thereby predisposing it to inflammations which may at any moment assume alarming symptoms. The first consideration in the treatment of otitis media is to obtain a condition of surgical cleanliness. To obtain this it is imperative that the egress of pus shall not be interfered with in the least. It therefore becomes necessary to destroy as much of the drum membrane as may be required to give free external exit to pus and to dilate the eustachian tube freely. The membrane can be removed by destroying with a strong caustic. Dilatation of the tube is practiced by the author by introducing a eustachian catheter connected with vaporizer containing iodine, menthol and creosote in oil

under thirty pounds pressure and forcing a continuous current of antiseptic air through the tube. This forces out anything that may be present in the tube and thoroughly disinfects the surface. This inflation is practiced by the author early in the course of the disease, especially if there is evidence of fluid in the tympanum. Having established perfect drainage the next question is one of disinfection. The external auditory canal can be disinfected by mopping out with antiseptics. For disinfecting the middle ear, two methods are employed by the author:

The tip of the middle-ear syringe may be introduced through the perforated drum membrane and by successively turning its point in different directions while forcing the fluid through, the entire middle-ear may be saturated with the disinfecting fluid. If sufficient force is used, especially if the eustachian tube has been previously dilated, the fluid may be forced through so as to emerge at the pharyngeal end of the eustachian tube.

All antiseptic fluid is also introduced into the middle ear by using a eustachian catheter and with an ordinary Davidson spray bottle attached, forcing the fluid into the middle ear. In addition to these methods, the author seeks to get a normal condition of the nose and naso-pharynx.

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DIONIN IN OCULAR THERAPEUTICS.

By LEARTUS CONNOR, A. M., M. D., Detroit, Mich.

(*Ophthalmology*, July, 1905.)

Credit is given Dr. Wolfberg, of Breslau, by the author for introducing dionin into ophthalmology. Since its introduction it has been extensively used. The drug comes on the market as a white, bitter, odorless powder soluble in seven parts of water. It is employed in watery solutions varying from two to ten per cent. It may also be used in an ointment. On the healthy eye dionin acts mainly as an irritant, the conjunctiva becoming red and thickened. The phenomenon begins a few moments after the drug has been placed in the conjunctival sac.

In so far as present knowledge extends, dionin acts as follows: The blood plasma suddenly escaping from the arterioles forces its way into the lymph spaces, washing away the debris accumulated during existing morbid conditions, and bringing fresh material for the repair of cell damages. The arterioles are enlarged three or four times and the lymph vessels tenfold; the first supplying the flood of blood plasma, the latter removing it to the general circulation.

The purely local action of dionin is indicated by the fact that if two eyes be painful, it relieves only the one to which it is applied.

The first application reacts most markedly, the next less so, until in about three days it practically ceases. After the interval of a few days, it again reacts as at first.

Cocain and holocain are both anesthetic and analgesic, but much inferior to dionin as analgesic, cocain least of the three; relief from dionin lasts many times longer than cocain. Dionin has no anesthetic action; hence is useless in the removal of foreign bodies and other operations. Many operators report benefit in preparing eyes for operations, as cataract or glaucoma, by rendering the eye less vulnerable to traumatism and reducing the pressure pain.

The author reports cases of corneal ulcer, iritis, acute keratitis with iritis or irido-keratitis, sympathetic ophthalmia, etc., in which dionin acted as a marked analgesic. The following conclusions are arrived at:

1. Dionin is an analgesic, not a local anesthetic, so is useless for the removal of foreign bodies or other eye operations.

2. It promotes the cleansing and repair of damages adjacent to the lymph channels of the deeper tissues of the eyeball.

3. While it has powers not possessed by other known substances, its exact place in ocular therapeutics has yet to be determined.

4. Under some conditions in some cases it has relieved "deep-seated pain," "cleared opacities in the transmitting media," "shortened the course of acute inflammations of the uveal tract," and "promoted a restoration of normal structures and function."

5. Until its status be more firmly established it is wise to use it in connection with accepted modes of treatment or after these have failed.

6. It increases the effects of mydriatics, myotics and local anesthetics, proving helpful in diverse pathological conditions.

7. Its limitations are: (a) The short period during which it operates—above three days—when it needs a rest of equal length. (b) In some individuals its reaction is slight and specific benefits small. (c) In some cases its reaction is startling and results correspondingly good.

8. To date no damage has been reported from its use.

* * *

VISUAL TESTS FOR RAILWAY EMPLOYEES.

By N. M. BLACK, M. D., Milwaukee, Wis.

(*Journal A. M. A. Feb. 18th, 1905.*)

The author presents an exhaustive article on the subject, having studied the conditions from the engine cab. Points in question illustrating the block system, etc., are elucidated with photographs taken by the author from

the engine. The following conclusions are arrived at:

1. The best known standard of visual perception should be required in men concerned in active operation of trains. 2. The signal system in vogue, while not perfect, are sufficiently adequate for the standard of vision required and the present speed of trains. 3. Certain physical and accidental conditions about engines interfering with vision can not be overcome unless the position of the engine-men can be changed. 4. Certain atmospheric conditions interfering with vision can not be overcome; others can be mitigated or entirely relieved by the use of some form of protection to the eyes. 5. Glasses are not a hindrance to engine-men, and their use should be allowed to protect the eyes or to bring the vision up to required standard, but no person should be accepted into service requiring them or who will accept a plus lens of 1 1-2 or 2 diopters. 6. With four reports emanating from four different sources of equal merit and standing and all different in small details, perfect uniformity in examination of railway employes is out of the question, as we can not expect the officials of all the roads to decide on the same report. 7. It would be well for the state societies to recommend legislation on this point to confer and make their reports uniform, since the laws will necessarily be based on them.

* * *

THE NON-TOXIC AMBLYOPIAS.

By T. W. MOORE, M. D., Huntington, W. Va.

(*Journal A. M. A., August 26th, 1905.*)

The non-toxic amblyopias are classed by the author under three heads:

1. Those cases of amblyopia exanopsia held to be due to inability to use corresponding areas of the retina at the same time. This may be due to high refractive errors, to improper muscle balance or to non-development of the cerebral fusion center. 2. The hysterical amblyopias. 3. The somewhat similar but different group characterized by impaired vision, contracted fields for white and normal color fields, the color vision being proportionate to the general visual acuity: these cases are usually designated as anesthesia of the retina. Lastly, there is the subgroup of these latter due to traumatism, often with pathologic changes of the fundus from old hemorrhage or choroidal rupture that has left the parts uninvolved in a healthy condition, though vision has not returned. These cases are closely allied to the preceding group, differing only in etiology and in the limited results of treatment. Amblyopia exanopsia is usually easy of diagnosis, the defective vision,

apparently normal fundus, frequent squint of one eye, and the high refractive error making it clear from the first. Moore finds the convex glass cure of Frommüller the most satisfactory treatment and reproduces the directions in full. In some of his cases he has had surprisingly good results and some improvements in all in which he could command the co-operation of the patient. With the hysterical amblyopias the diagnosis is also, as a rule, not difficult. The concentric and constant narrowing of the visual field with reversal for colors is characteristic. Other conditions may show the contraction, but not with the color reversal. In addition, there are the other signs of hysteria, both ocular and otherwise, to aid in the diagnosis. The treatment consists in general measures to build up the patient's health, correction of the hysterical tendency and of any errors of refraction, etc. As regards the cases grouped by him in his third class and which fall etiologically under two heads, those due to traumatism and those of unknown causation. Moore disagrees with Charcot and Leber as to these being hysterical and holds that the trouble is really in the retina instead of in the brain. An illustrative case is reported. His treatment in these cases is electricity, and he finds the faradic and high-frequency currents equally as efficient as the galvanic, and the high-frequency current perhaps the most useful. He applies the electrode over the closed lids, usually using the unipolar, though the bipolar is equally useful; in applying the latter his method is to let the patient hold the other electrode in his hand. With the reflex amblyopias from irritation of the fifth nerve he has had no experience

* * *

REMOVAL OF THE LENS IN MYOPIA.

By J. L. BARNES, M. D., Milwaukee, Wis.

(*Medical Record*, June 17th, 1905.)

Barnes reports a case from his practice, a girl of nineteen, with a degree of myopia not less than 25D. Both lenses were removed and a year later she still had vision 20-30 and could read No. 1 type on Jaegers test card at eight inches without glasses. The author takes up at length the history of the operation, its indications, contra-indications and results, and comes to the conclusion that there is a wide diversity of opinion as to its advisability. It appears, however, that the large majority of ophthalmologists, particularly those in Europe, believe that removal of the lens, although not ideal in all respects, is with certain limitations indicated and that it constitutes a very marked advance in eye surgery. It is generally believed that myopia and many of its attendant pathological lesions are by

such operations corrected and subjects restored to independence.

About 2,500 cases have been reported from abroad, while the author has found records of not quite fifty cases done in this country, so that American statistics do not afford a basis for any conclusive opinion. Fukala deserves the credit for bringing the operation into prominence, and his method, that of free dissection with linear extraction, is now the well-established plan of operating.

A NEW SANITARIUM FOR CONSUMPTIVES.

Recently a charter has been obtained from Harrisburg incorporating the Reading Sanitarium for the Treatment of Tuberculosis. As a result of the activity of the Reading Medical Society many of the influential citizens of the place have been interested and they will personally and financially give aid to the project. The hospital will be established in one of the hills about Reading, Penn., but in the meantime a few beds will be isolated in the Reading Hospital until the special building is erected.

The names of the directors under whose supervision the sanitarium will be erected are as follows: S. E. Ancona, the Rev. Robert Marshall Blachburn, the Rev. B. F. Callen, Dr. Israel Cleaver, Wm. W. Es-sick, Dr. F. W. Frankhouser, Dr. James R. Gerhard, Dr. Irvin H. Hartman, George M. Jones, Dr. J. W. Kauffman, Dr. Samuel L. Kutz, Wm. H. Luden, M. B. McKnight, John D. Mishler, Dr. John B. Raser, Dr. Howard S. Reeser, Dr. C. H. Shearer, Wm. D. Smith, P. R. Stetson, Dr. L. L. Thompson and O. M. Weand.—*Medical News*, Feb., 18, 1905.

SMALLPOX IN ILLINOIS.

Smallpox in Illinois seems to be on the increase, as during the past week twenty-seven cases were sent to the Isolation Hospital in Chicago. Four had old scars said to be from vaccinations made in early childhood, but had never been revaccinated. Twenty-three never had been vaccinated at all; seven were unvaccinated children under the school age of six years. Twelve of the patients came from down-town lodging houses. Not even a telegraph message, it is said, can reach Smithfield, a village forty miles west of Peoria, Ill., so strict is the smallpox quarantine and so great is the ravage wrought by the malady. The last means of communication with the outside world was cut off when the telegraph office was closed by the illness of the operator. Many deaths have occurred and the State officials have prohibited the stopping of trains at the village.—*Medical Record*, Feb., 25.

KENTUCKY MEDICAL JOURNAL.

BEING THE

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YELLOW FEVER.

Yellow fever is still with us and is likely to be until frost comes and destroys the means by which it is transmitted. The course of the present epidemic more thoroughly, if possible, confirms the demonstration that yellow fever is propagated solely and alone through or by means of its intermediate host, the *stegomya fasciata*. One thousand cases of yellow fever introduced into and cared for by our families in Louisville would not produce another case of the disease if there were no mosquito of this variety in our midst. Yet, one mild case of the disease bitten by one mosquito of this variety is sufficient to start an epidemic.

The insurmountable difficulties met by the authorities in New Orleans in the control of the present epidemic is manifestly due to the character of the people among whom the first cases occurred. They have shown from the beginning the disposition to conceal from the authorities cases as they occurred. Remember, it is only in the first few days of the disease that the mosquito can become infected, and hence where the case is hidden away, with the mosquito having free access, not hindered by bar or screen, many of them become infected and in two weeks are equipped for their deadly mission. If the first cases in New Orleans had been reported so that they might have been properly screened, no mosquitoes could have been infected and hence no secondary cases could have been developed. The disease no doubt was spread by these same people to the country adjacent to New Orleans. After being bitten, from two to five days elapse before any symptom of the disease appears. During this period of incubation they went out to the sugar plantations and had the disease, thereby infecting mosquitoes in the new focus and so on to the end—frost.

The first and most important trust placed in the hands of the Kentucky State Board of Health is to preserve the public health. In order to do this it is not necessary to exclude

cases of yellow fever if it is established that we have in our State no mosquito of this variety. It is claimed that we have this variety in Louisville, also in some other parts of the State, so it is regarded as unsafe to receive yellow fever cases for fear our mosquitoes may become infected and thus endanger our citizens. This can be obviated if it is possible to screen cases that come to us so perfectly that no mosquito can feed on them. This is all that has been necessary to stamp out the yellow fever in Cuba. We apprehend that it would be almost impossible to do this if cases should be allowed to come indiscriminately, for our people do not fully appreciate the absolute necessity of efficient screening; hence, the State Board has ordered that no transportation be furnished any persons from an infected district, unless they exhibit certificates showing that they have been kept under observation away from infected mosquitoes for seven days before coming to our State. It may seem a hardship that these people thus have to qualify themselves in order to secure our safety. We are ready and willing to receive them by the thousands if we can be assured that they have not been bitten by an infected *stegomya* within the last seven days previous to their coming to our State. It would be a greater danger to have an infected mosquito brought to our city than to have a man come sick with yellow fever. It is possible to screen the sick man so that he could not infect our mosquitoes, but who could say that an infected mosquito turned loose at the station at Tenth and Broadway would not in the next hour feed upon some non-immune person? This is prevented by allowing no car which can possibly carry an infected mosquito to run from an infected district into our State. Our purpose is to quarantine against the infected mosquito alone and not against men. This is the only restriction that should be placed against commerce, for no article of any kind can be so contaminated by the sick as to make it a menace to us. Exclude the infected mosquito and you will have no yellow fever. All cars are fumigated before they receive persons or such things as may harbor mosquitoes, and hence, we have little danger from that source.

WILLIAM BAILEY.

Louisville, Kentucky.

THE AMERICAN MEDICAL ASSOCIATION.

Without contest on the part of any other city, Boston, Mass., was selected for the place of meeting in 1906.

The work of the House of Delegates was

gotten through with a dispatch which has not characterized its former meetings. This is due largely, of course, to the fact that the machinery is no longer so new, and to the further fact that a better accord is being reached every year by the delegates from the various sections of the country. It is pleasing to note that delegates this year did not have to spend *all* of their time in the House of Delegates, but were able to attend most of the scientific meetings of the sections. This is most desirable, as many delegates, after attending one or two meetings, have announced they would not serve again in the same capacity, for the reason that they had no time for the attendance on the scientific meetings of the sections. If the meetings of the House of Delegates should continue so strenuous, that body would in time be deprived of the services of many of the best men in the country, men who at the same time are already familiar with the affairs of the Association.

On motion of Dr. Jones, of California, the Board of Trustees was instructed to put the advertising pages of the Journal A. M. A. on the basis provided for in instructions from the Association to that Board on two separate occasions several years ago. The work and reports of the Council of Pharmacy and Chemistry A. M. A. will serve as the basis of ethical standing of products offered for advertisement, and the practical outcome will be that no advertisements will appear in the Journal A. M. A. after expiration of present contracts, except such as meet the requirements of the Board. This constitutes at once a long step in the right direction, as of necessity all state journals and many of the privately owned journals will be compelled at once to follow suit.

The proposal to buy Englehard's directory, to serve as the basis of a medical directory of the United States, to be published and owned by the American Medical Association, provoked a discussion which for a time waxed warm. On final vote, however, the Trustees were authorized to make the purchase.

As there was reported to be some criticism of the trustees, and of other officers of the Association, Dr. J. N. McCormack, of Kentucky, national organizer for the A. M. A., declined to further prosecute his work except with the full confidence and accord of the House of Delegates, and with the promise of every delegate to give hearty support to the further movement for organization. The rules were suspended, and Dr. McCormack was requested by unanimous vote to continue the organization work.

The House further expressed its confidence in its officers by re-electing the three trustees whose terms expired this year, viz.: Drs. E.

E. Montgomery, of Pennsylvania; A. L. Wright, of Iowa, and H. L. E. Johnson, of Washington, D. C. The other general officers elected were:

President, Wm. J. Mayo, Rochester, Minn.; Vice-Presidents, Walter Wyman, of Marine Hospital Service, K. A. J. MacKenzie, of Portland, Ore., E. S. Talbot, Chicago, E. D. Martin, of New Orleans; Secretary, George H. Simmons; Treasurer, Frank Billings, both of Chicago. Orator in Medicine, F. C. Shattuck, Boston; Orator in Surgery, Joseph D. Bryant, New York; Orator in State Medicine, W. H. Sanders, Montgomery, Ala.

The following section chairmen were elected:

Practice of Medicine, Herbert C. Moffitt, San Francisco; Obstetrics, Charles S. Bacon, Chicago; Surgery, Robert F. Weir, New York; Hygiene, Denslow Lewis, Chicago; Ophthalmology, L. H. Taylor, Wilkesbarre, Pa.; Disease of Children, W. C. Hollopeter, Philadelphia; Stomatology, C. T. Allen, Newburgh, N. Y.; Nervous Diseases, Wharton Sinkler, Philadelphia; Cutaneous Medicine, Douglas W. Montgomery, San Francisco; Laryngology and Otology, Otto T. Freer, Chicago; Pharmacology and Therapeutics, Thomas F. Reilly, New York; Pathology and Physiology, Henry A. Christian, Boston.

The report of the Board of Trustees showed assets amounting to \$213,470.00.

THE FUNCTION OF THE STATE ASSOCIATION JOURNAL.*

The State Association Journal has many things in common with ordinary medical journals, and some things which are not shared by the other journals. In common with other journals it endeavors to present to its readers a reflection of medical advancement and research, and to give such news of a general nature as may be of interest and importance to the profession. In addition to general news it should especially strive, in common with other journals whose circulation is limited to a state or certain section, to give full local news of a medical nature.

In addition to these functions which it has in common with other medical journals, the State Medical Journal has the following special functions which place it in a class separate and apart from the general run of medical journals.

1. It occupies a position of great power and utility in the matter of maintaining and stimulating the organization in a state after it has been effected, and of course at the same time can wield a great influence in the matter of bringing into organization the counties

* A paper read before the Association of State Medical Journals, Portland, Oregon, July 11, 1905.

which may have been reached at first. As was foreseen, in Kentucky at least, it has been easier to effect organization in the first place than to maintain it when once effected. Our experience has been that there is a continual disaffection which has to be systematically met, and that it is only by continual and energetic effort that this disaffection can be successfully coped with. To do this best the journal is essential.

2. My own conception of the American Medical Association, as well as of the various State Associations, is that they respectively represent gatherings together of all elements of the profession, the highest and the lowest, the best and the worst, the extremely well informed and the fairly ignorant. The state association is not for the purpose of exploiting a galaxy of medical stars, of furnishing a good audience to a few shining lights, but is rather for the purpose of making the worst doctors in the state better men and better doctors. In other words, the purpose of medical organization is to raise the standard of medical education and make two good doctors where there was only one before.

It is comparable to the work of the Salvation Army: the deeper dyed the medical sinner is, the more the State Association needs him so as to make him better. The way to make a man better is not alone by telling him how to be better, but is rather by giving him the chance to do something, the doing of which results in making him better.

This brings me to another special function of the State Association Journal, which is to encourage and support the county societies by publishing the papers read before these societies. This results in the publication of many papers which are inferior, but I maintain that this is the cross which it is the special function of the State Association Journal to bear. I do not mean by this to say that every paper read before a county society should be published in the State Journal, because my own experience leads me to the conviction that every now and then a paper is submitted of such a character that one of two things must necessarily be done with it: either you must forward it to your competitor for publication, or you must bury it deeply in the strongest lock-box or the editor's desk. But papers which are fairly good though not first-class, should be published and always with the belief that when the author writes another paper it will be better at least than the last one. Some of our sister journals have shown a disposition to criticise the matter which has been published in some of the State Journals on the ground that

much of it has not been of the highest excellence. In my opinion such criticism is ill-founded. While we should ever be thankful for our ablest men in medicine, and should always be delighted to see in our columns papers from their pens, we at the same time should not lose sight of the fact that there is a much larger class to whom our columns should be open, men who will be made better more quickly and more surely by being stimulated to do work themselves rather than simply look on at the work of some other man. From this view point it has seemed to me that the list of essayists on the program of our national association and many of our state associations is open sometimes to criticism. Year after year we see the names of certain men, the best the country affords it is true. But there are many other good men who should be developed in society work who are not given the opportunity. The State Medical Journal should do everything in its power to develop as many good men as possible, never losing sight of the fact that its duty compels the freedom of its columns to the inferior as well as to the superior, to the end that the inferior may approach the superior, and the superior become superlatively good.

3. The third and last special function of the State Medical Journal is as a purveyor of information to the profession in regard to sanatoria, useful appliances and instruments and new and useful medicines. Not only are advertisements in medical journals not objectionable, but they are desirable, provided always they are of the right kind. If a knowledge of sanatoria, appliances and medicines is useful and serviceable to the practicing physicians, then it should be one of the special functions of the State Journal to bring this information to the profession of the state, quite irrespective of the money to be earned in this way. This question is involved in many complexities and difficulties, as we all know, and it is not the purpose of this paper to go any further into these. But it does desire to call attention to the fact that proper advertising matter should be carried by state journals, as they are the natural and proper media of communication between the makers and the users. Owing to the fact that the State Journal must necessarily publish many inferior articles, a strong effort should be made to offset this defect by editorial articles and by special articles reviewing good papers or important subjects appearing in current medical literature.

JAMES B. BULLITT.

HOW TO OBTAIN A CERTIFICATE TO PRACTICE IN THE STATE OF KENTUCKY.

The regular examinations will be held at the School Board Building, corner Walnut and Center streets, Louisville, beginning on the fourth Tuesday in April and October in each year. No special examinations will be held under any circumstances, and the law makes no provision for temporary certificates.

An examination will be required of all applicants, except those whose names are on file in this office as bona fide matriculants in recognized schools located in this State upon February 1, 1904, who shall have graduated from one of such schools prior to September 1, 1907, and who make application to this board prior to January 1, 1908.

The subjects for such examination will be anatomy, including histology and embryology, physiology, pathology, chemistry, surgery, obstetrics, gynecology, bacteriology, hygiene, ophthalmology, otology, medical jurisprudence, mental and nervous diseases, etiology and physical diagnosis. The law requires a general average of 70, and a grade of not less than 60 in any branch.

The examination will begin at 9 a. m. on the first day, and at 8 a. m. on the two succeeding days. All applicants must be present from the beginning of the first examination and punctually for all others. The examination will be secret and each applicant will be assigned a number by which he or she will be known until the papers have been graded and the success or failure fully determined. The board will furnish paper for the examination, but applicants will be expected to provide themselves with fountain pens, or with pen and ink.

Only bona fide residents of this State and graduates of recognized colleges located within the United States will be admitted to the examination. Applications upon forms prescribed by the board, attested by some officer authorized to administer oaths and endorsed by the medical referee of the county in which the applicant resides, accompanied by the fee of ten dollars, must be on file in this office at least ten days prior to the date fixed for the examination. Blanks will be furnished by the referee and the diploma must be exhibited to him.

The application must be accompanied by an unmounted photograph of the applicant, on the reverse side of which must be his or her full signature, duly attested, under the seal of some official of this State authorized to administer oaths.

Applicants are warned not to "practice or to treat or attempt to treat any sick or af-

flicted person by any system or method whatsoever" until a certificate has been received and recorded in the office of the county clerk in which he or she resides.

Itinerant and advertising doctors are not eligible for examination, and are not permitted to practice in this State, and special attention is called to the affidavit clause upon these subjects in the application blank.

All applications should be sent, and correspondence directed, to

THE STATE BOARD OF HEALTH,
Bowling Green, Ky.

(By a special arrangement of syndicating editorial matter among State Journals, the *Kentucky Medical Journal* publishes the following editorials from the California State Journal. From time to time editorial matter from it and other State Journals will be printed in these columns.)

THE CURSE OF PROPRIETARIES.

Practically all the so-called "patent medicines"—by which is really meant the nostrums advertised and sold directly to the laity—were originally "proprieties" introduced through the kindly offices of the medical profession and later given directly to the public. Most of those at present in vogue with the medical profession will undoubtedly take the same course in due time. Ask any pharmacist what will eventually happen if you give a patient a prescription for one of these "proprieties" (really nostrums), say pepto-mangan, bovine, sanmetto, tongaline, seng, etc. He will tell you that in due course the patient, or his wife, or his mother, or his children, or his sisters, or his cousins, or his aunts, or his wife's friends, will come into the store and buy some more of the same stuff—but without a prescription. In other words, you have lost a patient and you have induced some one or more people to become self-dosers. Sooner or later mostly all of this class of nostrums will be sold—and probably advertised—directly to the laity. Already this is the case with a number, notably antikamnia, and we frequently see a drug store window decorated with bottles of peptomangen, Fellow's syrup, etc., at special cut rates. Some months ago the "bovine" concern wrote to the *Journal* in high indignation because we had stated that they appealed to the laity direct. We have recently received some copies of a paper printed, apparently, at Athol, Miss., and entitled: "The Healthy Home." In this journal, which, from its general appearance seems to be intended to aid the layman in prescribing for himself, we read the following interesting advertisement:

"Bovine makes rosy-cheeked children. It brings bloom to pale faces, flesh to thin bodies. * * * *Your physician will heartily endorse it. Every druggist sells it.* The Bovine Co., New York." The lines in italic clearly indicate that this advertisement is not intended for the physician's perusal. Do you see the lovely gold brick?

Some woman sees this advertisement; she is a bit skeptical; she asks the druggist, "Do physicians prescribe this?" the druggist says that some do; she then concludes that she will save doctor's fee and give bovine to the ailing child at home, with the result that some serious condition, mayhap, goes on unrecognized and untreated till all chance of recovery is lost. And yet scores of supposedly decent medical journals are advertising this very same stuff—"bovine"—whatever it may be or contain—and among them are: *The Journal A. M. A.; American Medicine; Medical Record*; the official journals of the state medical societies of *Wisconsin and Maryland*, and possibly others; *Cleveland Medical Journal; St. Paul Medical Journal*, "Edited and published by the Ramsey County Medical Society." * * * Is it not astonishing that the medical profession will continue to extend with one hand and accept with the other, "gold bricks" like this? To bunco one's own self! It seems almost too ridiculous to be true!

DO NOT FORGET.

On the first day of this month of September, the Eighth Decennial Revision of the United States Pharmacopeia becomes the official standard of the United States and of something like one-half of the states of the Union. The Revision Committee, consisting of some of the ablest physicians, pharmacists and chemists in this country, has spent five years working upon the present volume, and the results of their efforts is in the highest degree commendable. It is well within moderation to say that every conscientious physician should have a copy of this book upon his desk; it should be to him the Bible and the prayer book of his professional life; if, in prescribing for the sick he restricts himself to those articles which are contained in the Pharmacopeia, he will protect himself, his patient and his pharmacist, and it is safe to say that no patient of his will have suffered for lack of the proper remedy. With the exception of a very few articles—mostly chemicals so recently patented that they could not, under the rule of the Convention of 1900, be included in the present work—the conscientious physician will not have to go outside of the Pharmacopeia to find all the remedies

which he may need. The standard of purity, quality and strength of pharmacopeial preparations are fixed by law and if the pharmacist supplies such preparations of other standards, he becomes liable to the law for his misconduct. Thus is the patient protected from the greed of the manufacturer. If you prescribe some unofficial preparation, something not in the Pharmacopeia, you have absolutely no assurance of what your patient will ingest. It is said that a large proportion of physicians have never seen the Pharmacopeia, never have used it, never were taught anything about it. At a banquet not long ago a recent graduate of a prominent medical school stated that materia medica and therapeutics had not been taught in his school for several years! No wonder the pharmacist's shelves are loaded with nostrums and reduplicated preparations each with a still more fanciful name, and his prescription files with so-called "prescriptions" for preparations of unknown value or composition! Is it not time, gentlemen of the medical profession, that we should study a little of the Pharmacopeia and teach ourselves a little of what we should know? Or shall we continue forever to "learn" our therapeutics from the smooth-tongued detail man of the nostrum manufacturer? Remember that important changes in the strength of some of the common and generally used drugs have been made; see the table on another page.

AN OFFICIAL DOCUMENT.

"Changes in the Pharmacopeia of the United States" is the title of a work just issued in pamphlet form by the P. H. and M. H. Service, and it is a monograph which should be in the hands of every practitioner of medicine. The introduction states that "the medical profession as a whole can scarcely be said to give the publication the support that it deserves; physicians often prescribe proprietary drugs or articles under commercial names when a greater familiarity with the Pharmacopeia would show that there are official preparations of similar character but of more uniform composition." Let us consider one example, at the present time. There are upon the market a number of preparations, each with its own fanciful name, which are generally supposed to be about 50 percent solution of cresol in linseed oil soft soap. Of these we may note *lysol, creolin, disinfectol, entero-cresol, germol, cresolin, lysitol, etc.* The Pharmacopeia gives us *Liquor Cresolis Compositus*, and defines its standards of purity and strength. Now just stop for a moment and think about this. In the first place, if you prescribe any one of

these commercial preparations—as for instance *lysol*—you have no assurance whatsoever of what you will be forcing your patient to use. It may contain some cresol today and none to-morrow, for there is nothing to compel the manufacturer to put any special thing into the preparation he calls *lysol*. He may bottle up coal oil and label it “*lysol*,” if he so chooses. If the price of cresol goes up, he may reduce the amount which he puts into his preparation. In other words, you are ordering a name and nothing else; a name with nothing to assure you of the nature or composition or permanence of composition, of the thing so designated. Now consider another point. Suppose a community having seven physicians, each one of whom has been approached by a representative of one of the houses manufacturing the preparations named and has been convinced that one only of the preparations is the real “Simon-pure-best” and that the others are—to put it mildly—not so good. (This is nearly always the case; *each* brand is emphatically “the best ever.”) As a result, each one of these seven men is ordering a different brand of what is practically the same thing, and the pharmacist is forced to keep seven brands, and to spend seven times the necessary amount of money—why? Simply because of the inexorable ignorance of these seven physicians! The Pharmacopeia gives one single, standard preparation; it defines the strength and the mode of manufacture; it makes the pharmacist responsible for this standard; it guarantees that the patient will always receive the same thing; it insures that the physician shall know exactly what he is prescribing and what the patient is using; it relieves the pharmacist of the unreasonable and unjust burden which has been placed upon him through the ignorance of the physician, and it places upon him the responsibility which is rightly his. Just stop in your busy life, for a moment, and think of this.

It is not a fanciful sketch but an actual occurrence and only one of hundreds which might be cited. Will you order some preparation of this sort under a trade name that gives you no assurance of what the patient will receive, or will you hark back to the Pharmacopeia of the United States and order *Liquor Cresolis Compositus*, knowing exactly what you are doing, and what your patient will receive—or where to place the blame if he does not receive exactly what you have ordered?

VERY IMPORTANT CHANGES.

The following table gives some of the more important changes in the strength of

pharmacoepial preparations. Those in the second column are in force and effect on and after the first day of September of this year. It is to be particularly noted that the strength of

Tincture of Aconite is less than 1-3 the old strength;

Tincture of Belladonna is less than 2-3 the old strength;

whereas the tinctures of *Cantharides* and *Capsicum* are double the former strength;

Tincture of *Digitalis* is only 2-3, and

Tincture of *Veratrum* is but 1-4 its former strength.

English Title.	Pharm. 1890. Per Cent.	Present Strength
Solution of Ferric Chloride.....	87.8	29
Solution of Ferric Sulphate.....	28.7	26
Solution of Iron and Ammonium Acetate.....	2	2
Opium, granulated.....	13-15	12-12.5
Opium, powdered.....	13-15	12-12.5
Syrup of Ferrous Iodide.....	10	5
Tincture of—		
Aconite.....	35	10
Belladonna Leaves.....	15	10
Cantharides.....	5	10
Capsicum.....	5	16
Colchicum Seed.....	15	10
Digitalis.....	15	10
Gelsemium.....	15	10
Hyoscyamus.....	15	15
Indian Cannabis.....	15	10
Lobelia.....	20	10
Nux Vomica.....	*0.3	+0.1
Opium.....	1 3-1 5	1.20-1 25
Opium, deodorized.....	1 3 1.5	1.20-1 25
Physostigma.....	15	10
Rhubarb.....	10	20
Sanguinaria.....	15	10
Squill.....	15	10
Stramonium.....	15	10
Strophanthus.....	5	10
Veratrum.....	40	10

* Total Alkaloids. + Strychnine.

STATE JOURNALS.

Four more state medical organizations have started medical journals as the medium of publication of their transactions, and one, Maryland, has made an existing journal its official publication. Texas, Ohio, South Carolina and New Mexico are the states to begin the publication of new journals, and we certainly wish them the very best of success and long and useful lives. The acceptance of the journal idea by comparatively small organizations, such as South Carolina and New Mexico, is very suggestive and is a lesson to some of the larger organizations which as yet are undecided. The fact that the members of a society can in this manner be reached every month in the year, and not merely once a year at the annual meetings, is undoubtedly one of the strongest arguments in favor of the state organization journal. The action of the A. M. A. in establishing the Council on Pharmacy and Chemistry furnishes a good and safe guide for the benefit of those who have charge of the business management of state medical journals, and there seems little reason to doubt that they can come together on a common ground and effect an

organization of state medical journals that will be of great usefulness and advantage to all. The four new journals have started right and there is no reason why, under the advice of the Council, they should not continue right; we believe that they will and we certainly wish them well.

PROGRAM OF SEMI-CENTENNIAL MEETING KENTUCKY STATE MEDICAL ASSOCIATION.

To Be Held at the Galt House, in Louisville,
October 18th, 19th and 20th, 1905.

Special attention is called to the following
by-law:

Chapter I, Sec. IV. Each member in attendance at the annual session shall enter his name on a registration card, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all privileges of membership at that session. No member or delegate shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Register as soon as you arrive at place of meeting. Registration will be provided for at the Galt House on Tuesday evening, October 17th, and at the same place the following days.

Participation in the social functions will be had by card only, which will be secured on registration.

FIRST SESSION—WEDNESDAY, OCT. 18, 1905, 10 O'CLOCK A. M.

Call to order by the President.
Report of Chairman Committee of Arrangements.
Report of other Committees.
President's Annual Address.
Oration in Medicine.

SECOND SESSION—WEDNESDAY AFTERNOON, OCT. 18, 2 O'CLOCK.

1. Dystocia—Its Causes, with Report of a case. T. S. Bullock, Lexington.
2. Dry Labor. M. S. Browne, Winchester.
To discuss papers Nos. 1 and 2, C. Z. Aud, Cecilia, H. B. Ritter, Louisville.
3. Post-partum Infections. Edward Speidel, Louisville.
4. Prevention and Treatment of Post-partum Infections. Basil M. Taylor, Greensburg.

To discuss papers Nos. 3 and 4, John E. Kincheloe, Hardinsburg, R. N. Filiatreau, Knottsville, H. A. Davidson, Louisville.

5. Rupture of the Uterus. Neville M. Garrett, Frankfort.
6. A Unique Case of Extra-uterine Pregnancy. J. Rowan Morrison, Louisville.

To discuss papers Nos. 5 and 6, J. G. Carpenter, Stanford, J. M. Salmon, Ashland.

7. The Care of Breast and Nipple During Pregnancy and Puerperium. R. M. Coleman, Lexington.

THIRD SESSION—THURSDAY, OCT. 19, 9 O'CLOCK A. M.

1. College Education Preparatory to the Study of Medicine. J. W. Pryor, Lexington.
2. The Irregular Regular. George E. Davis, Lawrenceburg.
3. Hemophilia—Report of a Case. Irvin Abell, Louisville.
4. Pleurisy—Its Pathology, Diagnosis and Treatment. John D. Jackson, Danville.
5. Infection and Contagion. Wm. A. Jenkins, Louisville.

To discuss, L. L. Robertson, Middleboro, W. F. Bogges, Louisville, Wm. Bailey, Louisville.

6. Fracture of the Skull. H. P. Sights, Paducah.

At 12 o'clock—

Oration in Surgery. Louis Frank, Louisville.

FOURTH SESSION—THURSDAY AFTERNOON, OCT. 19, 2 O'CLOCK.

1. Gastric Ulcer—Its Causes—The Pre-ulcer Stage. Charles G. Lucas, Louisville.
2. Gastric Ulcer—Its Diagnosis and Treatment. Samuel E. Woody, Louisville.
3. Surgical Aspects of Gastric Diseases. August Schachner, Louisville.

To discuss papers Nos. 1, 2 and 3, David Barrow, Lexington, J. J. Moren, Louisville, W. H. Wathen, Louisville.

4. Arterial Tension—Its Practical Significance. J. A. Flexner, Louisville.
5. Acute Infantile Summer Diarrhoea. S. J. Harris, Philpot.

To discuss, Henry E. Tuley, Louisville, R. D. Pratt, Shelbyville.

6. Capillary Bronchitis in Infants. R. B. Gilbert, Louisville.

To discuss, Frank Lapsley, Paris, Henry M. Pittman, Parksville.

7. Gas-bacillus Infection—Report of a Case. R. Lindsay Ireland, Louisville.

FIFTH SESSION—FRIDAY, OCT. 20, 9 O'CLOCK

A. M.

1. The Nature and Causes of Rheumatism. John G. Cecil, Louisville.
2. The Treatment of Rheumatism. Smithfield Keffer, Ashland.
3. The Complications of Rheumatism. H. E. McKay, Bardstown.

To discuss papers Nos. 1, 2 and 3, W. W. Richmond, Clinton, H. K. Adamson, Maysville, Carl Weidner, Louisville.

4. New Therapeutic Agents in Diseases of the Eye. S. G. Dabney, Louisville.

To discuss, W. B. McClure, Lexington, I. Lederman, Louisville.

5. What to Do in the Presence of Persistent Obscure Abdominal Symptoms. H. H. Grant, Louisville.

To discuss, A. W. Barkley, Lexington, Ap. Morgan Vance, Louisville, W. A. Quinn, Henderson.

6. Flat-foot and Weak-foot. B. F. Van Meter, Lexington.

7. The Tuberculosis Problem in the South. Dunning S. Wilson, Louisville.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The *Carroll County Medical Society* held its regular monthly meeting at Carrollton on September 12th, Dr. N. C. Brown, President, in the chair. This was one of the largest and most interesting meetings of the society.

Dr. Brown presented an interesting clinical case of "Fistula of the Nasal Duct, of a Child."

Dr. P. V. Ellis read an interesting and thoughtful paper on "Scarlet Fever, with Report of Cases." It was discussed by Drs. Cecil, F. H. Gaines, Holmes, Wheeler and Messink.

Dr. John G. Cecil, of Louisville, was present and gave an interesting address on "The Importance of Organization of and Membership in the County Society." This address, which was greatly enjoyed, will put new life

into our society. Hearty thanks are extended to Dr. Cecil.

An amendment to the by-laws, changing the meetings from monthly to quarterly, was adopted, the meetings to be held on the Tuesday following the first Monday in January, April, July and October.

Drs. S. E. Hampton, J. R. Darbro, J. R. Hilling and H. S. Rowlett were elected to membership. Dr. W. B. Messink, who has removed from Worthville to Port Royal, Henry county, asked for a transfer card. This society will miss Dr. Messink very much but we take great pleasure in recommending him to the Henry County Society.

F. M. GAINES, Sec'y.

* * *

The *Casey County Medical Society* convened in Liberty on August 24th, with the following members present: Drs. J. T. Wesley, I. S. Wesley, Duke Godbey, W. T. Garner, C. L. Herren, John D. Combes, L. F. Hammond, O. Dunham and D. S. Floyd. There were also present four visiting physicians, Drs. Ed. Alcorn and Bertie Carpenter, of Hustonville, Dr. J. G. Carpenter, Councillor of the Eighth District, of Stanford, and Dr. A. M. Carpenter, of St. Louis.

The meeting was called to order by the president, Dr. I. S. Wesley. A motion was made, and carried, that the time be given to Dr. A. M. Carpenter who, after some reminiscences of his boyhood days in Kentucky, took up typhoid and malarial fevers, giving his differentiation and successful treatment. He dwelt at length on sanitation and the part played by the patient.

After dinner Dr. Carpenter gave us an interesting talk on pneumonia and dysentery which was followed by an interesting discussion.

Dr. J. G. Carpenter gave us a talk on medical organization, "The Relation of the County Society to the State Society," dwelling on the importance of the doctor being a member of a medical society, both from a professional and financial standpoint.

A vote of thanks was tendered Dr. A. M. Carpenter for his presence and instruction. Three new members were taken in and the program for the next meeting was arranged, after which the society adjourned to meet in Liberty the fourth Thursday in October.

D. S. FLOYD, Sec'y.

* * *

BOURBON COUNTY.

Paris, Ky., Sept. 9th, 1905.

Dear Mr. Secretary:

Since our meetings occurring on the third Thursday of each month, happen at an inopportune time for announcement of pro-

gram, and too late to get in the bulletin for the next, I will send you a summary of several meetings. Since December we have been working on a plan to secure attendance and unification. Proceeding on the hypothesis that one of the easiest modes of entrance to one's mind as well as heart and pocket-book is through one's stomach, the society has not held a single meeting at which some sort of refreshments have not been served, and really we have had more offers for entertainment than we could accept, so popular have our meetings been. In addition to the regular meetings, Dr. Fithian and your secretary entertained Dr. Barrow and his friends, about fifteen in number, from the Fayette Society, together with the Bourbon Society, at an outing up Stoner creek, in July, the day being spent fishing, swimming, swapping stories and drinking "sterilized spring water," and eating a picnic dinner and supper. We believe by these meetings that good fellowship and professional feeling have been greatly improved in the county, for it is a mighty poor sort of a man who will accept one's hospitality and not have a more kindly feeling professionally the next time he meets him, or gets one of his dissatisfied patients.

Dr. J. S. Wallingford entertained at dinner at the Elks' Cafe, in April, Dr. B. Merrill Ricketts, of Cincinnati, presenting his paper on Gall Stones, the discussion of which was opened by Dr. Louis Frank, of Louisville.

Drs. Wm. Kenney and Wm. Dudley entertained with a dinner at Dr. Kenney's in May, the purpose being the discussion of a hospital for Paris. During that meeting the names of Drs. Faries, Poege and Grainger were added to the society roster.

In June the society was royally entertained at dinner at Millersburg by Dr. C. Bruce Smith, the guests and essayists of the evening being Dr. Louis Frank, of Louisville, and Wm. Savage, of Cincinnati, two Bourbon boys who have attained eminence in surgery in their respective cities, and Dr. Aitken, of Lexington. Their papers were respectively: "Random Thoughts in Surgery," "Colles' Fracture" and "Random Thoughts in Medicine."

Dr. F. L. Lapsley entertained with refreshments at his home and office, in Paris, in July, the paper of the evening, by Dr. Daugherty, being "Clinical Reports of Cases."

In August the society went in a body to North Middletown, as guests of Dr. Gilkey. Since we were unable to get Mahomet to the mountain, we moved the mountain to Mahomet; and a good meeting we had too, after dinner at Dr. Gilkey's home. The paper of the evening, "Cholera Infantum, Summer

Diarrhoea and Ileo-Colitis," by Dr. Lydia Lloyd Poage, was excellent and well discussed. Here the society voted to meet with Dr. Huffman, of Millersburg, since we could not get him to our meetings elsewhere. He has accepted, and we will proceed there on the evening of September 21st.

Very respectfully,

C. G. DAUGHERTY, Sec'y.

* * *

CLARKE COUNTY.

Winchester, Ky., Sept. 9th, 1905.

Editor Kentucky Medical Journal:

I regret to announce the death of Dr. T. S. Allan, of Bloomingdale, this county, on the 9th of this month of pulmonary tuberculosis at the age of 48. He had been a sufferer from the dread disease for several years but stuck to his work till forced to take his bed last spring. He was a graduate of the Hospital College, of the class of 1882. He was a member of both his county and state medical associations and was known as one of the most upright and ethical physicians in this part of the state. His life was indeed a typical one of a conscientious, painstaking physician and an ideal Christian gentleman. He leaves a wife and three children. No more laudatory words have ever been said by a minister of the gospel than were truly said at the grave of our brother in regard to his life and character. The Masons buried him, his pall-bearers being physicians. Surely such a life as he lived in this day of sin and transgression, both socially and professionally, to be emulated by us all, could be and would be only for the betterment and elevation of all.

I. A. SHIRLEY.

NOTES.

The next *examination for license to practice medicine* in Kentucky will be held by the State Board of Health in Louisville on October 24th, 1905.

The changes in the U. S. Pharmacopeia, effective September 1905, are comprehensively shown in a sheet prepared by H. K. Mulford Company, of Philadelphia. They are also preparing a small folder suitable for pasting in prescription pads. Copies of these folders will be furnished physicians on application.

Drs. W. O. Roberts, J. Garland Sherrill, G. A. Hendon, T. D. Finck, Dudley S. Reynolds, C. Z. Audd, A. D. Price and James B. Bullitt, who fared to Portland on the special

train under the auspices of the Kentucky Medical Journal, have all returned. Dr. Bullitt was the last to arrive, having been detained by a severe poisoning with *rhus diversiloba*, the Pacific Coast representative of the poison oak family.

Dr. James Vance, of Louisville, left for El Paso, Texas, on September 6th, 1905. He will remain permanently in El Paso.

Dr. H. I. Jones, of Tompkinsville, has gone to Denver, Colorado, for an indefinite time on account of tuberculosis disease.

Dr. Henry E. Tuley has resigned as Medical Director, and a member of the Board of Directors of the Citizens' Life Insurance Company, of Louisville. He has been succeeded as Medical Director by Dr. Thos. Hunt Stucky.

Dr. George W. Duncan, of Franklin, Simpson county, Kentucky, died at his home on Sept. 8th, after a prolonged illness due to cancer, which had its beginning on the right ear.

Dr. Duncan was much honored in his community and was a power for good in the medical profession of Simpson county. His loss is a serious one.

Dr. Steele Bailey, beloved of Kentucky doctors, has been sojourning for some time at Robinson, Utah, at the Tintic Hospital. He did not go there for his health, but for other peoples'. He has been assisting his son-in-law, Dr. C. P. Harveile, to get the Tintic Hospital well under way. It is pleasing to state that Dr. Bailey has not become infected by the bacillus of polygamy, and that it is expected he will soon return to his native Kentucky soil.

The *Kentucky Anti-Tuberculosis Association* has continued to increase its membership in a very gratifying manner. The organization is now practically complete and active work is insured by the personnel of its officers, directors, and committees. The annual meeting will be held during the meeting of the State Medical Association. It is intended to extend the work to the entire State and it is hoped that visiting physicians will avail themselves of their presence in the city to attend the meeting and affiliate themselves with the Association.

Dear Doctor:

Do you know of a young doctor who wants

a location? I want to sell. I am located on the Lovelaceville road, 8 miles from Paducah. I have a nice cottage house with six rooms, nice office with shelves, bottles, prescription case and fixtures; stables, buggy shed and all necessary out-buildings, fine pond, cistern, two acres of land, with 26 acres one-fourth mile away, will sell with lot if wanted. Four to seven miles from any doctor. Good pay. Nice locality, on rural route, with postoffice, two stores, school house and church. Also phone in my house and fine roads to drive over.

I will sell for cash, or for part cash and balance good notes. I want to move to Paducah.

DR. L. G. GRAHAM,
Massack, McCracken Co. Kentucky.

SUICIDE IN GERMANY.

Official figures recently published by the German Statistical Office, in reference to suicides in the German empire, are by no means of a satisfactory nature. They show a steady increase in the number of persons who have made away with themselves since 1900. A little more than 20 persons in every 100,000 inhabitants killed themselves in that year. In 1901 the proportion rose to 20.8, and in 1902 to 21.4. The percentage of suicides was lower in agricultural than in industrial districts. Of every 100,000 persons in Berlin, 31 committed suicide during 1902; in Saxony 33; in Hamburg more than 37. Eighty per cent of the total number of suicides was men. A curious and unpleasant feature of the case is the number of young married couples who have destroyed themselves together, especially in Berlin.

ETIOLOGY OF PNEUMONIA.

The examination of healthy lungs have convinced H. Rurck (Munch. med. Woch., June 28, 1904) that a large number of bacteria, including the pneumococcus, are almost constantly present in the alveolar spaces. In certain animals the filtering apparatus of the upper air-passages is very perfect, but in man even coarser particles reach the lung and give rise to the well-known discoloration. Another factor thus must be active to set up an inflammation, and this the author believes to be sudden exposure to cold. If a pure culture of pneumococci is blown into the lungs of animals nothing will usually happen, but if the animals are first chilled by placing in ice-water, a pneumonia results almost invariably. Autopsy shows a typical lobar consolidation.

KENTUCKY MEDICAL JOURNAL.

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION.

VOL. III.

LOUISVILLE, KY., NOVEMBER, 1905.

NO. 6.

ANNUAL ORATION IN MEDICINE.*

THE RELATION OF LABORATORY METHODS TO MEDICINE.

By J. T. McClymonds, M. D., Lexington, Ky.

Our present day medicine is simply a stage in the evolution of medical science. Primitive man inherited from his Simian ancestors a knowledge of poisonous plants, roots, fruits and berries, which knowledge, in our higher civilization, has to a great extent been lost. Along with this practical toxicology, they received some crude knowledge of surgery, and to some degree a knowledge of plants having medicinal value.

The extent of medical progress made by prehistoric man is, of course, lost. Archaeology has carried back the historical period some 70 centuries B. C., and the earliest written records find those practicing the art of healing held in high esteem. The law code of Hammurabi, King of Babylon, written some 2400 B. C., contains clauses regulating the practice and remuneration of Surgeons. Sections 215 to 223 read as follows:

Sec. 215. If a doctor has treated a rich man for a severe wound and used a bronze lancet, and has cured the man, or if he has opened the eye of a rich man with the bronze lancet, and has cured the eye of the rich man, he shall receive ten shekels of silver.

Sec. 216. If the patient be the son of a poor man, he shall take five shekels of silver.

Sec. 217. If he be a gentleman's servant, the master of the servant shall give two shekels of silver to the doctor.

Sec. 218. If the doctor has treated the rich man for a severe wound with a lancet of bronze and has caused the rich man to die, or if he has opened an abscess of the eye of the rich man with a bronze lancet and has caused the loss of the rich man's eye, one of his hands shall be cut off.

Sec. 219. If the doctor has treated a severe wound of a slave of a poor man with a bronze lancet, and has caused his death, he shall render slave for slave.

Sec. 220. If he has opened the abscess of a slave, with a bronze lancet, and has made him

lose his eye, he shall pay half the slave's price in money.

Sec. 221. If the doctor has cured the shattered limb of a gentleman, or has cured the diseased bowel, the patient shall give five shekels of silver to the doctor.

Sec. 222. If the patient is a poor man, he shall give three shekels of silver.

Sec. 223. If he is the servant of a gentleman, the master of the slave shall give two shekels of silver to the doctor.

Up to the time of Hippocrates, 460 B. C., the etiology of disease gave the medical world but little difficulty. All that was good came as a gift from the gods. All that was bad came as a punishment. So medicine was more largely a matter of incantation, charms and spells, and it appears that while drugs were often administered; their use was always accompanied by prayers to the gods.

Hippocrates was the first to dispute this theoretic origin of disease and gave in its stead the Humoral theory. In this the body contains four humors; blood, phlegm, yellow and black bile. Their proper balance meant health—any disturbance of balance, disease. This theory, absurd as it appears in the light of modern knowledge, marks one of the greatest epochs in the history of science—in that it leads thinking minds to seek physical instead of supernatural explanations for physical phenomena.

The first years of the Christian era found no little progress made along certain branches of medicine. A fairly accurate knowledge of the anatomy of the bony structure, muscles and internal organs, had been gained; first, by the Egyptians through their practice of embalming; then by dissection of lower animals; later, anatomical knowledge was greatly advanced by the Greek anatomists, Alcmaeon, Democedes, Hippocrates, Herophilus and Erasistratus. The latter being the first to practice dissection of the human body.

Apparently little was known of the nervous system, but it would seem highly probable that the vascular system had received careful attention.

Along practical lines, surgery had made rapid progress; reduction of fractures and dislocations, arrest of hemorrhage, operations on tumors, abscess, etc., were successfully practiced.

In internal medicine, many diseases were recognized, and in a few cases, medicines were

* Delivered before meeting Kentucky State Medical Association, Louisville, Ky., October 18, 1905.

properly employed, as the use of opium for pain; squill to produce diuresis, and the free use of water in certain fevers, etc. Of physiology but little was known. Hygiene and preventative medicines had been foreshadowed by Pythagoras and Hippocrates. The latter in his treatise on "Air, Water, and Places," says: "And I wish to give an account of the other kinds of water, namely of such as are wholesome, and what bad and what good effects may be derived from water—for water contributes much towards health."

The Pagan world has been tolerant to scientific truths, but with the spread of Christianity and the increasing power of the church, the dark age of science began, and for twelve centuries, so far as the Christian world was concerned, but few names are worthy of mention. Claudius Galen, born in the second century, before the church had gained its power, and Paul of Aegina in the seventh century, after the seat of learning had been transferred from Rome to Byzantium, are the brilliant exceptions.

After the capture of Alexandria, in 640, by the followers of Mohammed, the seat of medical knowledge centered in Arabia. During this period extending to the thirteenth century, much was added to our knowledge of disease.

Rhazer accurately described smallpox. Avicenna was the first to recognize tuberculosis as a contagious disease, and to Avenzoar belongs the discovery of the itch parasite, and its relation to scabs. Numerous useful drugs were added to the pharmacopoea, and Geber, in the eighth century discovered Sulphuric, nitric and nitro-muriatic acids, which greatly advanced chemical knowledge. The thirteenth century marks the awakening of scientific thought in the Western world, and notwithstanding the bitterest opposition by the church, scientific study and investigation went steadily forward.

Arnold of Villanova and Peter of Abano, re-established the study of medicine. Mondino of Bologna revived anatomical investigations and in the following century, Guy de Chauliac restored surgery to its place in medicine. The fifteenth century is marked by the spread of medical knowledge rather than to the discovery of new truths, this being brought about by the art of printing which made accessible the writings of previous investigators.

The sixteenth century produced Paracelsus, one of the most remarkable men in the history of medicine. How little would be expected from a man who stood before his students and said: "Now at this time, I, Theophrastus, Paracelsus, Bombast, monarch of the Arcana, was endowed by God with special gifts for this end: that every searcher after his su-

preme philosopher's work may be forced to imitate and follow me, be he Italian, Pole, Gaul, German or whatsoever or whosoever he be." Yet this man was the greatest medical reformer of the mediaeval age. He denied the fallibility of the teachings of Hippocrates and Galen. He asserted and proved by his clinical results that the blind following of the principles of treatment laid down by those writers, was often directly the cause of death. He believed that health depended on the union of salt, sulphur and mercury in the body, and that their total separation caused death. His ideas on digestion were far in advance of his time, and he was the first to employ mercury in the treatment of syphilis. To his discredit he taught that the study of anatomy was useless, and that the practice of surgery was to be condemned.

The same century that gave this disbeliever in anatomy, gave to anatomy Etienne, Versalius, Eustachius, Fallopius and Servatus. This latter anatomist should undoubtedly be accredited with the discovery of the pulmonary circulation, as the description in his work, *De Christianismi Restitutioni*, published in 1553, compares more than favorably with the description Harvey gives in his *De Motu Cordis*, published seventy-five years later. Servatus says, "but little passage of the blood does not, as is vulgarly believed, take place through the median wall of the heart, but by a clever device the blood is drawn from the right ventricle of the heart through the lungs by a long route: it is prepared by the lungs, is rendered yellow, and is transferred from the arterial vein into the venous arteries. It then becomes mixed with the inspired air in the same venous artery, is cleansed of soot by expiration and thus the entire mixture is finally drawn from the left ventricle of the heart by the diastole—a suitable pabulum in that it becomes spirit."

Eighteen years later an Italian physiologist, Caesalpius, published an almost similar account of the circulation through the lungs. It remained, however, for Harvey to clear up the problem of the general circulation that had held the minds of medical thinkers long before the time of Hippocrates. Up to the beginning of the eighteenth century, laboratory methods with the exception of anatomy and the use of the simple lense, had played but an insignificant part in the study of medicine. Subjective symptoms, inspection, palpation and the gross examination of excretion were the only methods in common use for the study of disease. And when we consider the limited means at the disposal of the ancient physician, we can but marvel that so much could be accomplished. Their description of some disease pictures, show an accuracy of descrip-

tion that cannot be surpassed by modern clinicians, and in many instances they deduced theories whose truth had been demonstrated centuries later. The theory of organic evolution was dreamed of by the Grecian philosopher Anaximander 4-500 B. C., when he taught that man evolved from aquatic animals. The atomic theory had found a place in the brain of Democritus 460 B. C. Empedocles antedated Lamarck twenty-three centuries when he said "Many characteristics appear in animals because it happened to be thus in their birth, as that they have such a spine because they happen to be descended from one that bent itself backwards.

Over twenty centuries ago, a Roman physician recognized the causal relation of the mosquito to malaria. Bacteria were first seen by Leeuwenhoek of Delft, Holland, who had constructed a very much enlarged simple lens with which he examined deposits from around his teeth and found it teeming with what he called minute animals. That these were bacteria there can be no doubt, as in his description he distinguishes long and short rods, twisted and circular bodies, these corresponding to our bacillus, micrococcus and spirillum.

Through all these centuries which saw the development of medicine, two of its greatest allies, physics and chemistry, had progressed by the same slow process of evolution. Archimedes, Ctesibius, Hero, Alhazen, Roger, Bacon, Robert Hook, Deonardo De Vinci, Galileo, Gilbert, Robert Boyle, Mariotte, Von Guericke, Christian Huygens, Newton, Hauksbee, Stephen Gray, Dufey, Ludoff, Von Kleist and Franklyn, had made their discoveries in mechanics, the properties of matter, dynamics, optics and magnetism. Chemistry, from the earth, air, fire and water: of the early Greeks, became the elements salt, sulphur and mercury of the alchemists who, in their search for the elixir of life and in their efforts to transmute the baser metals into gold, made many valuable discoveries. As Von Helmont's work on the properties of gas, and Gerber's discovery of the stronger acids. About the middle of the seventeenth century, Robert Boyle paved the way for the phlogiston theory which was elaborated by Becker and Stahl and was accepted for over a quarter of a century. Boyle believed that air was a mixture of gases, and pointed out that the **alchemistic theory** that metals contained a living principal (spirit) by which they explained the phenomena of mortification and revivication, might be due to some element contained in the air. This element became the **phlogiston** of Stahl and Becker, which, according to their theory, was contained in all substances, could only be liberated by heat,

and when in a free state, immediately sought to combine with some substance which contained little or no phlogiston. In the following century chemistry advanced with rapid strides, chemists now turning their attention to the study of the composition of air. Steven Hales showed that air was elastic, and that it was composed of several gases. Joseph Black discovered carbonic acid gas, studied its properties, and showed that it was contained in the expiration from the lungs.

Priestly, in 1774, discovered his ephlogisticated air (oxygen). In his experiments he found that it supported combustion and went so far as to inhale it and to predict its value as a medicinal agent. Shortly after the discovery of oxygen, Henry Cavendish proved that water was not an element, but was composed of hydrogen and oxygen, and a little later discovered the composition of nitric acid. While the English chemists were making these discoveries, Karl William Scheele, of Sweden, was carrying on his experiments which gave to chemistry and commerce chlorine, glycerine, acetic, mallic, oxalic, gallic, mucic and tungstic acids, and independent of the work of Priestly, also made the discovery of oxygen, but he like Priestly, could not free himself from the phlogiston idea.

To Lavoisier belongs the credit of the overthrow of Stahle's theory by showing that oxygen explained all the phenomena that had been ascribed to phlogiston, and that no such substance as phlogiston existed.

In collaboration with other chemists of the French school, Lavoisier gave us the ground work for our present chemical nomenclature. And from this point we date modern chemistry, although organic chemistry was yet hampered by the belief of the phlogiston chemists, that organic matter contained the so-called vital principle which could not be dealt with by chemical methods. Wohler in 1838, by his synthesis of Urea, destroyed the last link that bound chemistry to ancient tradition. With the eighteenth century, a new era in the study of medicine began, by the introduction of laboratory methods in the study of disease, and the recognition of the value of pathologic-al examination. The value of the former was brought into prominence by Albrecht Von Haller whose experiments on animals clearly demonstrated that the nerves were the carriers of sensation, and that the muscular tissue was the only tissue of the body that could be irritated, (made to contract).

Morbid anatomy, while it had been studied to some extent in the previous century, had received but scant attention from students of medicine until the publication of the work of Batista Morgagni in 1761, demonstrating

its importance, and opened this new field of research. In the latter half of the century, physiological chemistry had its beginning in Brezelius's study of the chemistry of the urine, and in the experimental study of digestion. At this time gastric digestion was thought to be entirely a mechanical process, food being brought to fine state of division by a grinding process carried out by the stomach walls—physiologists having ignored or forgotten the suggestion of Paracelsus, that the stomach contained a chemist whose duty it was to separate the poison from food, a decidedly more rational conception than the mechanical theory. By a series of brilliant experiments, Rene Reamur proved that the stomach did not act by grinding. He placed particles of food in silver capsules, one end being covered with gauze so as to admit the passage of fluid; these he fed to a buzzard, and on their regurgitation found that their contents had been dissolved. Dr. Stephens, of Edinsborough, carried out similar experiments. He devised a perforated silver sphere which could be separated, these were filled with food, and were swallowed by a mounted bank. On their passage through the intestines they were found partially or entirely empty, conclusively proving that digestion in the stomach or bowels could only be a chemical process.

The fact that digestion could take place outside the animal body was shown by Spallanzani. Gastric juice was obtained by attaching small sponges to strings; these sponges were introduced into the stomachs of animals, and on being withdrawn, the juice was expressed; this he mixed with food, placed in a small vial and carried in his axilla—the first incubator), and found that after a few hours the food had been digested.

In the prevention of disease, the century closed with but two morbid conditions that could be successfully combated—scurvey, by appropriate diet, and smallpox by vaccination.

Science through countless years, has thus been gaining bulk and momentum, and the nineteenth century saw it sweep forward with irresistible force. The ranks of its devotees were increased many fold, scores of workers devoting their efforts to individual problems, no point being too insignificant to escape careful inquiry. Specialism along all lines was the order of the day, and through the work of clinical observers, laboratory investigators, and through the aid furnished by the kindred sciences, medicine, in some of its branches, emerged from conjecture and empiricism, to a place with the exact sciences. This advance was largely brought about through the application of new methods of study, and while the older methods, observation, gross anat-

omy and pathology, etc., were far from exhausted, as the separation of typhoid and typhus fevers by Gerhard, the discovery of the pathognomonic signs of measles by Koplic, and many similar observations show.

Early in the century, two of the most important methods of physical examination came into use. The first of these methods, precussion, was a discovery of the previous century. Auenburggen in his *Inventum Novum* published in 1761, described a process of tapping over the human body, and by noting the character of sound elicited, stated that the size and position of many of the intestinal organs could be accurately determined.

This important discovery was ignored by the medical profession until Couvesart in the first years of the nineteenth century recognized its incalculable value, and through his championship made its practice general.

Almost a decade elapsed before Laeneck discovered that by placing a cylinder of paper over the chest wall of the patient and pressing the free opening to his ear, that the sounds made by the heart and lungs could be clearly heard. This he termed auscultation; and his paper cylinder, which he replaced by one of wood, the stethoscope.

These methods in the hands of their discoverers, and such investigators as Piorry, Skoda, La Neck, Andral, Traube, Gerhard and Weil rapidly placed physical diagnosis on a rational basis. In 1830, through the work of Joseph Lyster, and Annici, was given to science its greatest aid to progress, the perfected compound microscope, and throughout the world were many men capable of appreciating its value, and quick to call upon its marvelous power.

In 1833 Robert Brown discovered the cell nucleus; six years later the cell theory was advanced by Schleiden and Schwann, which was elaborated by numerous microscopists and saw its culmination in the aphorism of Rudolph Virchow—"Omnis cellula e cellula." With this recognition of the importance of the cell, came the cellular pathology, and the study of minute anatomy, which brought its store of exact knowledge to further the advance of pathological and physiological problems.

In view of the study of cystology, it is difficult to understand why almost one quarter of a century elapsed before those little animals that moved so delightfully under the magnifying glass of Leeuwenhoek were recognized in their causal relation to disease.

As early as 1837, Schwann and Latour had correctly surmised that these were living vegetable organisms, and that they were the cause of fermentation and putrefication. This theory was bitterly fought by so great a chem-

ist as Liebig, and the controversy continued until Pasteur proved by his experiments, published in 1857, that not only yeasts and bacteria could produce fermentation and putrefication, but that these processes could not occur without their aid. Six years later Devaine, who had ten years before observed bacteria in the blood of animals dying with anthrax, resumed this study, and by inoculation experiments, concluded that these bacteria were the cause of the disease. The experiments of Devaine started many observers to work along this line, but again it required the genius of Pasteur to forever settle the question of the pathogenesis of bacteria by his experiments on anthrax, given to the public in 1877. From this time discovery followed on discovery and the importance of bacteria in the etiology of disease was fully recognized.

While the microscope culture methods, inoculation experiments and post mortem findings enabled bacteriologists to clearly establish their specific relation to disease, it could not answer the question as to how these minute organisms produced their lethal action. Hence the aid of chemistry was invoked and each pathogenic bacteria was found to elaborate a specific poison (toxine). Later came the discovery that these same bacteria and their toxins, when introduced into living animals, produced chemical substances which tend to minimize or destroy their toxic action. While this study of vegetable organisms was progressing, work on animal organism was being advanced; indeed, if we go back to the discovery of the itch mite, by the Arabian, Avenzoar, we find that the study of parasitology greatly antedated that of bacteriology but as this was forgotten for centuries, we can say that modern parasitology had its birth in 1838, when the Polish medical student, Remucci, demonstrated Avenzoar's discovery that scabs were due to an almost invisible parasite. About the same time, an English student, James Paget, while dissecting, had his attention attracted to some peculiar whitish specks embedded in the muscles. These specks when examined under the microscope by his professor of anatomy, Richard Owen, were found to be animal parasites, which he named *trichena spiralis*. From this it was learned that bacteria were not the only invisible enemies of man and that many pathological conditions in which a bacterial cause had been sought, might be due to minute animal organisms.

Through the invention of instruments of precision, new technique, and the application of physical and chemical methods of study, medicine has advanced along all lines. In physiology, the main problems of digestion, respiration, circulation of the blood, body

heat, excretion, secretion and the nervous system, have been solved.

In pathology, not only diseased tissue is studied, but it embraces every departure from the normal in the secretions and excretions from the body, and in many cases from the knowledge thus gained, determines the changes taking place in the internal organs.

This progress was not unattended by serious errors in the interpretation of this mass of new material, as many examples may be cited.

Virchow, the greatest pathological investigator of any age, at one time taught that tuberculosis was a disease characterized by the formation of malignant growths in the lungs, which almost invariably resulted in death, and that what was then known as scrofulous glands and caeons pneumonia was not tubercular. On this false pathology, Nieamyer based his dictum that the end of tuberculosis as a rule is death, which still clings to the minds of the laity, and what is more important to the minds of many practitioners.

Again, in the enthusiasm of the discovery of some new fact or method of study, its importance, though great, has been over-estimated, as when hematologists showed that certain pathological conditions as the leukemias and anemias could be absolutely determined by the examination of the blood it was thought by many that every diseased condition would have an accurate blood picture. We now know, that while a blood examination in many conditions yields diagnostic points of the greatest value, that in relatively few conditions is it possible to make an accurate diagnosis from the blood alone.

Clinical diagnosis had departed from its ancient simplicity, anamnesis, inspection and palpation, while their value has never been greater, in many cases serve only as a beginning in the study of disease, these time-tried methods must be supplemented by more modern ones.

By percussion we learn the size, position and resistance of internal organs and neoplasms, we detect the presence of fluids and gas in the abdominal and thoracic cavities. By auscultation we study the condition of the pulmonary and circulatory systems. The thermometer gives us the internal and surface temperature of the body. The sphygmograph and sphygmomanometer show the character of the pulse and measure the arterial pressure. By the aid of mechanical devices and the electric lights, many of the body cavities are open to direct examination. Dynamometers test the power of the muscles. The electric current shows their degeneration and the Roentgen ray makes visible the bony structure, chemical deposits and the size and position of some

of the viscera, etc. Inspection of excretions has grown into an exhaustive physical, chemical and bacteriological study, not only of the excretions but of the blood and digestive fluids.

How important a position laboratory methods play in modern medicine can best be understood by following up the progress made in the study of a few separate conditions.

Let us take for example diphtheria. The first description of the disease is found in the writings of Aretaeus and Galen, and throughout the mediaeval period, epidemics were common; in the seventeenth and eighteenth centuries the number of cases had in no way diminished, so abundant opportunity was afforded to the older physicians to study the disease, yet the last quarter of the past century found it a multinamed and multitreated disease.

Inspection had given a most accurate description of the location and appearance of the membrane in typical cases, but fortunately all membranes are not diphtheritic, and not all cases of diphtheria have typical membranes, so no amount of clinical experience, as has been shown later, can enable the most skillful observer to reach a correct conclusion in a large per cent of his cases. The symptoms were carefully studied, but in many cases they are identical to those in tonsillitis; paralysis was the one symptom that could clinch the diagnosis and this does not occur in more than fifteen per cent cases.

Of treatment there were legions, all alike unsatisfactory. One thing at least was fully appreciated, and that was its extreme contagion. In 1883 the laboratory made the first advance in the study of the disease when Klebs found that in the pharyngeal membranes of those dying of diphtheria, there was always present a peculiar club-shaped bacillus.

One year later Löffler confirmed Klebs' discovery, and succeeded in isolating the bacillus, and proved its specific nature by inoculating animals, causing their death and often the formation of a typical membrane. In 1888, D'Espine showed the importance of this discovery to clinical diagnosis by demonstrating the presence of the Klebs-Löffler bacillus in twelve typical cases of diphtheria, and showing that it was not present in twenty-four cases which had been so diagnosed, the subsequent history of the latter cases proving them to be tonsillitis.

Since D'Espine's report, all competent bacteriologists and clinicians are one in stating that without the presence of the special bacillus there can be no diphtheria. But on the other hand, the presence of the virulent bacillus in the mucous membrane of the nose and throat can occur in perfectly healthy indi-

viduals, as has been frequently shown. This, of course, meaning that those individuals were immune or had sufficient resistance to prevent the invasion of bacteria. Again in some cases a non-pathogenic bacillus, having the same morphology as that of the Klebs-Löffler, has been found (the so-called pseudo-bacillus) first described by Hoffmann.

Another important and interesting point that has been worked out, is the length of time patients who have recovered from the disease, judged from the disappearance of the symptoms and membrane, may retain virulent bacilli in their throats; one case being reported where they were found on the forty-fourth day.

It may be asked of what value is the bacteriological examination, since the bacillus of Klebs-Löffler are found in healthy throats, and a non-virulent bacillus being at times found that cannot be distinguished from the virulent by microscopic examination. The clinician has nothing to do with normal throats, and while the growth of true and false bacilli on blood serum may be the same, and though the microscopic examination of stained specimens from membranes and growths on culture media, present nothing by which they can be distinguished, yet the inexcusable error is never made of pronouncing a case of true diphtheria non-contagious. And while the microscope and culture methods fail to differentiate the true from the pseudo bacilli, they can be easily separated by inoculation experiments, and diagnosis confirmed by the latter method prove that the ordinary culture and microscopic examination are correct in over ninety-nine per cent cases.

The laboratory did not rest after clearing up the etiology and diagnosis, but set itself to answer the problem why it was that such a circumscribed process should be attended with such fatal results. Then came the discovery that the bacillus when grown in suitable artificial media, elaborated a soluble poison of the gratest virulence; and the pathologist was soon able to detect the effect of the poison on the human body in degenerative changes in the heart muscle, kidney cells, and the appearance of minute hemorrhages in the nerves, thus explaining the paralysis, sudden failure of the heart's action and uremic poisoning seen in some cases.

Seven years after Klebs and Löffler made known their discovery, Von Behring found that the blood serum of animals rendered immune to diphtheria by injecting them with gradually increasing amounts of the toxine, contained the substance (anti-toxine) which when injected into susceptible animals, would protect them from many times the minimum fatal dose of the bacteria or its toxine. Fur-

ther, that in many cases animals in which the disease had been produced experimentally could be saved by the injection of this serum.

We have only to turn to reports from any hospital, and compare the mortality of diphtheria treated with and without anti-toxine, to find abundant evidence to convince any rational being of the wonderful results obtained by serum treatment.

Another important point that these statistics confirm, is that no delay should occur in beginning treatment, as every hour lost greatly lessens its efficacy. The aid rendered by laboratory methods has made itself indispensable to all clinical work.

In typhoid it has given the etiological cause the bacillus of Eberth, or which is more correct, the Eberth group. It was shown that these bacteria are contained in the dejecta and urine of patients suffering with the disease, and that water, no matter how polluted, must contain the specific micro-organism before it can produce typhoid, and through this knowledge has demonstrated that the disease is one that can only be acquired through criminal ignorance or carelessness.

To gross pathology, the laboratory has added an accurate microscopic pathology, and through the isolation of the specific group from the excreta, blood, etc., and the Widal re-action diagnosis has been greatly facilitated. And so one could run through the entire list of diseases that man and animal are heir to, and show laboratory achievements in each and every one. Anthrax—the discovery of the specific cause and the practical wiping out of this disease which was costing Europe many hundreds of thousands each year.

Surra and Nagana, the cultivation and isolation of their pathogenic protozoons, and trypanosomes, Evansi and Brucci. Malaria, the discovery of the plasmodium and the following up of every stage in its development through the intracoporeal and mosquito cycles. Gastric diseases rescued from conjecture by the stomach tube and the chemical and microscopical examination of the stomach fluids and contents. Yet with all the wealth of knowledge accumulated by laboratory workers, many problems as yet remain unsolved.

Some of our most prevalent contagious and infectious diseases, measles, scarlet fever, whooping cough, epidemic parotidis and syphilis have baffled every effort to isolate the specific cause, and the same can be said of malignant neoplasms. No diagnostic points have been found which enables us to take more than a probable diagnosis of diseases of the pancreas. A satisfactory explanation of the functions of the pineal gland and pituitary

body has yet to be given. The study of metabolism and katabolism is far from complete. The work on heredity and immunity have many chapters yet unwritten. The exact chemical formula of the proteid molecule still illudes the chemist, and the problem of life, the "Riddle of the Universe," remains a riddle. But to the laboratory investigator no problem is insurmountable. Like King Bruce's spider, failure and repeated failure do not discourage him, he is inured to have weeks, months and years of thought and experiment end in absolute failure, and often by the labor of a life time, the rounds he has added to the ladder of some new truth do not reach the top, and he must be content with knowing that his work has made achievement possible for some future investigator.

The chief end of laboratory and chemical work is the same—the prevention of disease, and secondarily, its cure. The laboratory places in the hands of the physician, knowledge of diagnostic methods and remedial agents for use in practical medicine. And while no amount of laboratory knowledge and technique can of itself make a successful practitioner, yet on the other hand no amount of knowledge and experience in clinical medicine will enable one to dispense with the aid, scientific research has placed at his disposal. It is not essential and often it is impossible for the busy practitioner to do this laboratory work; but he must at least know when it can be of help, and to understand the full significance of a laboratory report when it reaches him. He must know that laboratory methods to be of value must be above criticism: that the use of apparatus and the employment of chemical tests mean more than the following out of text book instructions, for without a thorough understanding of the principles involved and an accurate technique in the use of apparatus and reaction, the results obtained are often worse than useless.

There are still not an inconsiderable number of physicians who have failed to grasp the proper value of the methods of the chemical laboratory, and these have fallen into two classes; one because they do not understand, say it cannot help them (and they are no doubt correct), the other expect nothing short or miracles.

One point cannot be too greatly emphasized; that is, that laboratory findings are but aids to diagnosis, and the clinician who is capable of estimating their value in connection with the knowledge gained through a careful history, inspection and physical diagnosis must meet with the greatest diagnostic success, and only through this comprehensive view of each diagnostic point can errors be eliminated.

As has been previously stated, the value of

many discoveries relative to the progress of medicine, has, for a time, been over-estimated. This is especially true of laboratory tests.

After the discovery of Bright that in some cases of dropsy accompanied by heart disease, the urine contained albumen, and that a pathological examination of fatal cases showed diseased kidneys. For a considerable period the detection of albumen in the urine meant nephritis. While to-day no one questions the value of the presence or absence of albumen in the diagnosis of kidney disease, we know that albumen can be present without any demonstrable lesion in those organs, as in cyclic albuminuria; and we also know that very serious and fatal pathological changes can take place in the interstitial tissue of the kidney, yet the urine at times be free from the minutest trace of albumen.

The Diazo reaction, while it is always present at some time in the course of typhoid fever, is no longer considered pathognomonic of the disease as it has been found in many other conditions, paratyphoid, tuberculosis, measles, etc., but as it is very rarely met with in certain other diseases, it retains no inconsiderable diagnostic value.

The absence of free hydrochloric acid in the gastric juice, no longer speaks positively for cancer of the stomach, as some few cases of this disease have shown an excess of acid, and the absence of acid is constantly found in achylia gastrica, and almost invariably in pernicious anemia. Yet the absence of acid, taken in consideration with the entire symptoms complex, in the large majority of cases will lead to the correct diagnosis of malignant diseases of the stomach.

Probably no point in diagnosis has received more attention and discussion than the value of the absence or presence of a leucocytosis in differentiating and estimating the gravity of certain diseases. The list of diseases in which this question comes up for consideration, is large and only its value in appendicitis,—a disease lying in the borderland between medicine and surgery,—will be touched upon.

In this disease, a positive finding means simply corroborative evidence. That it is present in by far the greater number of acute cases there can be no doubt, and this, of course, makes it of great diagnostic value, as many abdominal conditions which may simulate it show no increase in the number of leucocytes. There are however, a few cases in which for some reason this increase does not take place, as where the formative power of the leucocytes are overwhelmed by the virulence of the infection, or where the condition has existed for some time, some cases may have gone on to perforation and the formation of circumscribed abscess, yet a leucocytosis,

cannot be demonstrated although it was present in an earlier stage of the disease. So, in the absence of a positive blood finding with well defined and urgent clinical symptoms, no surgeon could be for an instant justified in delaying operative treatment.

The value of leucocyte counts are probably of as much practical value in determining the progress of the disease as in its diagnosis. Let us take those cases where in the judgment of the physician and surgeon operation is postponed, to await a more favorable period. In such cases repeated blood examinations should be imperative. The abatement of clinical symptoms is only of value when accompanied by a corresponding decrease in the number of white blood cells. Their increase, irrespective of subjective symptoms, temperature, etc., means the extension of the local process and speaks most positively for surgical intervention.

To the initiated, the laboratory is always a blessing; to the uninitiated, it may be a curse.

The man who delays the use of antitoxine in a suspected case of diphtheria until the bacteriologist has made his report, has, in many instances, lost the hours that meant life to his patient.

The examination should be immunized; if negative, the patient is not subjected to isolation, and in every case the injection should be made at the earliest possible moment—the laboratory report can come later.

In tuberculosis an equally fatal mistake can be made in delaying diagnosis and treatment until the specific bacillus is found in the sputum. When we remember that the sputum does not contain bacilli until the process in the lung has gone on to the breaking down of tissue, and that a diagnosis can be made in many cases from physical examination months before bacilli can be demonstrated by the microscope, it is easily seen how much time of priceless value can be lost.

There is a body of workers in every part of the civilized world who devote their lives to the study of a science. Many of them have never diagnosed a case or written a prescription, and not one in a thousand receive the remuneration of a moderately successful practitioner of general medicine. Their hours are often long and midnight ail is in common use with them; they take their risks and often pay with the loss of eyes, limbs and even life—the price of some miscalculation in chemical reaction or in accidental infection. And these men every year give to their brothers in active practice, incalculable aid; so whenever and wherever a body of medical men sit down to break bread and partake of that juice of which old Omar sang, be they internists, alienists, oculists, aurists, cynacologists, surgeons

or whosoever or whatsoever they may be, there is one toast that should always stand first, the laboratory.

THE BUSINESS SIDE OF MEDICINE.

By H. F. BEAN, M. D., Auburn, Ky.

Someone has said that "A man places a low estimate on his occupation to value it merely as a means of getting a living," and so he does. But the average general practitioner of medicine is not burdened with much material wealth, and it behooves him not to neglect altogether the financial features of his profession if he wishes to keep the wolf from howling about his door while he tarries in this world and hopes to make provision for his loved ones after his departure for "that bourne whence no traveler returns."

Charity work on the part of the physician should be cheerfully done and the poor should have as good and faithful service as the rich; and no true disciple of the healing art will fail to do his share of such work. Our profession is admittedly given to more deeds of charity than any other, the noble calling of the ministry not excepted. But from those who are able to pay for medical services, full compensation should be demanded and obtained for our time and skill, and it ought to be impressed upon the mind of the compensator that we are demanding the larger portion of the pay for professional acquirements and ability.

It is a true and trite saying that "The world places the same estimate on a man that he places on himself." Of course, one must have some grounds for self-valuation, but if we do not set a valuation on our work and knowledge, no one else is going to take the pains to make an appraisal for us. And in medicine, as in everything else, the cheapest is usually far from being considered the best. There are some people in every community, it is true, who are on the lookout for a "cheap John" doctor, but the man of average intelligence, and the one higher up in the scale of mentality, wants the physician who is able to command a fair valuation for his services when he, or any of his family, needs medical attention. The doctor who practices his art for "a song," is usually one of poor qualifications and has to work for meager pay, and for people who are not able to discriminate between the good and the bad in ability, in order to get a little practice. You can usually "size up" a doctor of this variety, for he seldom fails to show his lack of mental and material equipment, and, like "Billy Wiggs," he generally looks "as seedy as a raspberry." The penny-a-pill fellow usually has to take

what he can get. If a doctor has spent time and money to equip himself for the practice of medicine and surgery, and devotes his whole time and his talents to the study of his profession, he is worth all reasonable demands for his ministrations; besides, the mental and physical "wear and tear" he has to undergo entitles him to a monetary consideration. And then, if a doctor is a close student and keeps up with the progress of his calling in equipment and research, his services are worth more than those of the so-called physician who never burns a drop of midnight oil and is content to practice medicine and surgery as the fathers did.

On the other hand, those who seek our services are entitled to the best that in us lies, and we owe it to them that we give them services commensurate with good fees.

The field of medicine and surgery is undoubtedly too broad to admit of the man who essays to labor therein to devote any of his time and thought to other avocations. The conscientious doctor will not make medicine a side issue, for if he does he is doing those who place their lives in his hands an irreparable injustice, and is bringing his profession into disrepute. The doctor who cares so little for the noble art of healing that he allows himself to drop behind the procession, and runs off after strange gods in his eagerness to "bridle the skittish American dollar," has missed his calling and should abandon medicine for the career of a "David Harum," or the independent life of tickling the soil.

In scheduling our fees we ought to put them on a professional basis and not arrange them with the idea of competition in view. To my mind there is nothing more deplorable than the tendency in our profession to lower the standard of compensation to the commercial and labor level. The only way, it seems to me, to keep the regular medical profession on a dignified and elevated plane is for its members to stand together for a high standard of service and a just recompense for the same. We should certainly command more reverence and better fees than the charlatan, and yet it is a lamentable fact that we fall short of him in both respects. But if this is to be done, there will have to be a decided change from the present state of affairs, and a revolution will have to be started by the younger men of the profession, for as Dr. Holmes once said, "Revolutions are not begun by men in spectacles."

The conviction has become fixed in my mind that it makes very little difference about the other fellow's fees: the important thing is for me to get my own to the proper point and keep them there. If I cut fees outright, or in a round-about way by allowing discounts, I

am doing myself as well as my fellow practitioners an injustice, but if I keep them at the proper height, or even put them above the customary charges, I am helping others to get adequate compensation for their time and skill. The reputation of being a good charger and a close collector is not a bad one to acquire; it enables one to weed out the undesirable element from his practice, and while he may fall short in the amount of work he does, the pay will be better than if a great deal of cheap work is done and slipshod business methods pursued. Compared with the fees that men of other professions and callings get, the fee bills of the average physician are far less than they should be. The impression seems to obtain among the laity that a doctor's work is easily and quickly done, and that he should wait an indefinite period for his pay, while no objection is raised to paying a lawyer larger fees and with much more promptness. And they do not mind paying a lawyer five or ten dollars for a few words of consultation, while many of them are inclined to enter a protest if their family physician has the audacity to charge then one or two dollars for advice concerning their welfare. Brethren, such things ought not so to be.

As to the time and method of collecting fees, my views would probably be of more value were I more famous as a financier; however, my preaching may be somewhat better than what I practice. Shakespeare makes one of his characters say: "It were easier to tell twenty what it were best to be done than to be one of the twenty to follow your own teaching." My opinion is that not much time should elapse between the rendition of a medical or surgical service and the presentation of the bill—the older the account, the harder it is to collect. A settlement should be had while the memory of the service is fresh in the mind of the one served. Who of us has not had the experience of seeing gratitude grow "smaller by degrees and beautifully less" in the minds of those we have helped out of trouble, and of having their memories grow faulty concerning fair promises to pay? Bills should be due and payable as soon as cases have been dismissed, and statements of accounts ought to be rendered at least every three months. If the ones indebted are unable to liquidate with cash, satisfactory notes should be given. Of course, some of a doctor's fees have to be taken in "chips and whetstones, cordwood and potatoes," for which he must allow a good, round price, but I think the coin of the realm should be demanded whenever it is possible to get it. A great many of our honest farmer friends want cash in hand paid and the highest market for what

they let the doctor have, and yet if he has a bill against one of them and presents it six months or a year after it was made, there is often a display of sensitiveness on the part of said honest farmer, and he is apt to show an inclination to change to a doctor who does not have to have his bills settled in such haste. If we were all more prompt in sending and collecting our bills, such difficulties would disappear.

This is a practical age and the evolution of the organization idea has progressed until it is beginning to stand out in bold relief. Every class of breadwinners and money-hoarders is organizing for selfpreservation and protection. There are combinations of capital and federations of labor; and even the farmers, the avowed enemies of combines, are showing an eagerness to corner the products of their labor and lands; but the doctor is slow to take the cue from those about him and goes underpaid and poorly appreciated. I can see no reason why the members of the medical profession in a county or community should not organize and regulate their fees, making them within the bounds of reason, of course, for their mutual benefit and protection. By so doing, they work no hardship on the worthy poor, for the true physician is always ready to meet the demands of charity. There is a reward, to be sure, much greater and more lasting than a few paltry dollars can give, and there is none of us who should not strive to be the ideal physician and make himself so useful and helpful to his friends and neighbors that, like good William McClure, he may live in the hearts of those he may leave behind him. But it is a mistaken idea of charity for us to wear ourselves out working at poverty-producing rates for people who are able to pay us adequate fees for the services we render them.

This paper has not been written so much in a spirit of criticism (though friendly criticism along the financial line is needed by most of us) as with the view of putting us to thinking on matters of vast importance.

The year is in its "swaddling clothes," and the time for making new resolutions is at hand. Let us get together, if we can, on the fee question as well as on every professional point, for if any class of men should be united and in full sympathy with each other, that class is the regular medical profession. I know that doctors are proverbial for disagreeing and for harboring detestable dislikes for their fellows, and that it is a hard matter to get them to work in unison to keep up the compensation and dignity of the profession. There is a remedy for this, however, if we will only apply it. Let us resolve to weed out of our hearts and lives all petty jealousies and

envyings, and each one strive to keep inviolate the Hippocratic oath and observe to the letter the excellent rules of the code which, I fear, have been woefully neglected in these latter days, and let us furthermore resolve to make a bold stand for a good compensation for our services.

It is a good and beautiful thing for brethren to dwell together in unity, and if we will uphold each other and unite in demanding good fees, the dignity of our profession will take a rise and there will be fewer poverty-stricken doctors in our ranks.

AUTO--INTOXICATION AND INFECTION.*

By L. T. ECKLER, M. D., Subrise, Ky.

This subject has such wide scope and has had so much recent study that it is obvious that it is impossible to do justice to it, or to even give a good description of the most important facts, in a single limited discussion.

Auto-intoxication has of recent years occupied a position among the most important of the scientific studies. Those who for many years have been devoted to the scientific study and research of pathological processes, symptoms and anatomical lesions, have at last come to the very vital part of their study, namely, the origin of disease. The profession has not changed her mood, she has simply changed her attitude of observation. At this age among the first things sought for in the study of disease are the etiological factors connected with that disease. The causal factors of disease are innumerable, but among the foremost stands the toxic substance formed in the body, or taken into the body from without.

Bouchard gives as results of the many causes, four chief pathogenic processes:

1. Primary elementary dystrophies.
2. Nerve reactions.
3. Disturbances of Nutrition.
4. Infection.

It is the purpose here to discuss in particular infection, as it is the means of producing many cases of auto-intoxication. For purpose of discussion we will separate the action of these infectious agents into two classes, namely, those which act from without, and those taken in through the medium of the gastro-intestinal tract. The phagocytes have a tendency to destroy any organism of an infectious nature that invades the system. In infection, the white blood cells gather in enormous numbers, surround the bacteria and build a defense to prevent the dissemination of microbes and general infection of the sys-

tem. The microbes war against the body cells with very active products, and many times win the battle and succeed in producing death of the organism. In many cases the body cells react and successfully recur to the attack. It is most probable that the white cells throw out ferments, the purpose of which is to surround and destroy the bacteria and to neutralize the toxins produced. The ferments which kill bacteria are called alexins; those which neutralize, antitoxines. After the process of infection has been warded off, the system is in a sense immune for a time through the education of the body cells.

In erysipelas, septicemia, and other like diseases, we have striking examples of these toxin formations produced by the action of microorganisms upon the body cells, absorption of which causes serious trouble in formation of diseases and their sequela.

Since it has been demonstrated that the acute infectious diseases are produced by the action of the various bacteria upon living cells, it is certain that the many symptoms referable to the general system are not produced alone by the irritation of germs upon body cells but are caused in the main by the many poisonous substances formed by such irritation. Through the process of absorption the toxic materials are taken up by the body. Therefore, it should be the aim in the treatment of such diseases to support the organism in such a manner that the body cells may become sufficiently educated to be able to ward off the action of the infectious agents and prevent the formation and absorption of toxic materials. It is with this motive that the theory of preventative medicine has been so much developed of late years. It is the duty of the physician not only to study the microbe in the production of disease, but he should also acquaint himself with the circumstances which best protect the system against infection. Since the usefulness of the microscope in the study of infective agents has been developed, many very useful and brilliant discoveries have been made which have given more enthusiasm to the study of medicine. The living nature of contagion cannot be questioned. There is in a person who has a contagious disease, a living vegetable organism of lower type, which, when implanted in a healthy individual, has the power of producing a similar disease. Infectious agents in the digestive canal often give rise to much serious trouble. It has been demonstrated, even in physiological life, that throughout the gastro-intestinal tube there are numerous bacteria, the multiplication and growth of which would produce many harmful substances, such as alkaloids, volatile acids and ferments. Aside from this, as before stated they destroy

* Read before the Harrison County Medical Society, April 8, 1905.

the activity of living body cells and produce toxic materials. They also cause gastro-intestinal fermentation. It has been very truly stated that "The human organism, both in its normal and pathological states, is a receptacle and a laboratory of poisons." Nature's safe-guards are constantly at work, through the excretories, to prevent fatal poisoning. The phagocytes or leucocytes are in continuous battle with the microbe in order to protect the system. If it were not for these processes, the blood would contain many more poisonous materials. It has been demonstrated that the injection of normal blood into a perfectly healthy animal under aseptic precautions would not cause poisoning, but that the excreta would contain products very harmful if injected into another animal. Again, if blood taken from an infected animal be injected into one in perfect health, intoxication is very likely. The absorption of healthy cells is harmless, but if they are destroyed or decomposed they are extremely dangerous. In decomposition, acids, alkaloids and mineral substances which are extremely dangerous are produced. Man in his normal state is in danger of intoxication during digestion. In the change of albuminous substances into peptones, many poisonous alkaloids are formed which if retained would prove damaging to the system. In the digestion of a single meal enough ptomains might be formed to produce fatal results if they should be retained and absorbed. The liver acts as a filter for the body. It has been shown that after ligation of the portal vein in an animal who is the subject of intestinal derangement, many ptomains could be found in the blood. Carter, of Berlin, demonstrated that indigo was present in the portal circulation of animals suffering from intestinal diseases. Food undergoing digestion often gives rise to ptomain formations. The mineral matter of meats and decaying vegetable matter produce, during putrefaction and digestion, toxic materials should they be retained. In the ingestion of tainted materials various infectious agents are also taken into the gastro-intestinal canal which result in the process of putrefaction. It was for a long time a question whether the intoxications were produced by the putrid materials, or by the action of the infectious agents. Koch's theory is that if they were due to the infectious agents, a period of incubation would be necessary for multiplication and growth. Later it has been demonstrated that both are intoxicating; however, the putrid material is much less so when considered without the infectious agents. In formation of putrescent material many poisonous alkaloids and ptomains are formed, which when absorbed give rise to auto-intoxication.

The bacteria most commonly found in the gastro-intestinal tube are the *bacillus lactus* areogenous, colon bacillus, streptococci and staphylococci, any of which are capable of causing irritation, inflammation and destruction of cells with the formation of poisonous ptomains. If the stomach should be free from bacteria, which is not the case unless it is previously washed out, the ingestion of a meal would introduce enough different bacteria to cause decomposition of food and irritate the gastro-intestinal mucous membrane. Aside from the toxins above considered are those produced by the physiological secretions themselves.

Most of the juices of the gastro-intestinal tube

Most of the juices of the gastro-intestinal tube are capable of undergoing fermentation and putrefaction. For a long time bile was thought to be antifermentative but it has been shown that it is capable of fermentation and putrefaction. It was proven by Gaspard in 1882 "that putrid materials are toxic," and more so than products of dissimilation. Naturally then, the intestinal contents are toxic if retained. Stich proved this by injection of fecal matter from healthy animals into other healthy animals. He found that such a procedure would produce intoxication.

Other fluids of the body when retained become sources of irritation and undergo changes which render them dangerous. When, for any reason, the kidneys do not functionate properly and liberate substances necessary to be excreted from the blood, the accumulation of such substances will produce toxemia. Such an example is seen in the study of uremia. Normal urine when retained in the kidneys proper will be re-absorbed and become intoxicating. Ammonia, potash, and other solid excretions found in decomposition of urine are sources of poisonous material when absorbed. As results of the formation and circulation of the many toxic materials, predisposing or exciting causes of diseases are made possible. Typhoid fever, though an infectious disease, is partly consequent upon auto-intoxication from irritation of cells in Peyer's glands and solitary follicles. Many of the constitutional symptoms could be explained by the absorption of materials formed by such irritation.

Some cases of diabetes mellitus may be traced to auto-intoxication. The over-production of peptones from excess of proteid diet may result in storing more glycogen than can be used, and glycosuria is produced. If either of the fat-converting processes of the body are deranged, either the protoplasm of cells of the intestines or the liver, carbohydrate foods would readily enter the blood and poisoning result. Again, if the pancreatic se-

cretion be cut off or checked, the blood would absorb carbohydrate materials from the intestines and produce diabetes. All forms of fungi have been found in diabetics, showing that probably some cases are connected with microbe infection.

It is possible that, as has been brought out in one of the late issues of the American Journal, auto-intoxication may be a cause of that state of the system which for so long has been a scientific problem, namely, *senility*. The absorption and circulation of the many poisonous ptomaines and alkaloids through and through the vascular system causes irritation of the endothelial cells of the blood vessels, with the production of thickening by increased connective tissue, and hardening by the probability of calcareous deposits. Consequently, one can see that arterio-sclerosis might in this manner be brought about.

Again, many of the chronic valvular diseases of the heart may be caused by these same processes, through thickening and degeneration of the endothelial covering of the valves, with deposit of calcareous materials.

In the kidneys also, one can see the same conditions—"pipestem arteries"—causing as they do increased resistance to the kidneys' elimination of materials from the blood. These conditions, together with many others, being present, it is possible that auto-intoxication is a cause of senility.

Many cases of nephritis, both acute and chronic, may be traced to the excretion of poisonous substances from the blood, producing death of the renal epithelial cells and formation of casts.

PSYCHIC INFLUENCE AS A THERAPEUTIC AGENT.*

By A. J. McNEES, M. D., Lancaster, Ky.

I feel my inability to discuss this subject from a scientific standpoint, but in order to fill the place your kind partiality has shown me, I will endeavor, in my limited capacity, to discuss the topic from a practical standpoint as applied in therapeutics, and I trust you will be kind enough to help me in bearing the responsibility.

I do in no manner command any originality, but in this age of advancement in modern therapeutics we should hope to seek a higher plane, as expected of us by our predecessors, who by diligent study and investigation have laid the foundation that we might gain a more thorough knowledge in the treatment and management of disease. Philip Brooks has said, "The broad mountain top with its sunlight and free air is possible to all of us if we

choose to struggle on and reach it," and as we merge from mediaeval practices and customs of our predecessors, we feel ourselves drifting into more modern means and customs. We can look at the practice of medicine only in a conservative way, and it may continue in the future to retain its characteristics. We all know this to be commendable within certain limits, but we should not in any manner allow this to be a hindrance in the path of advancement. All the characteristics of nature, like the peristaltic movement of the ocean, do not stand still; it seems to be ordained by nature's process to go on and on. There is great danger to our profession in extreme conservatism, more so than in radicalism, much as we realize that the latter is to be justly deplored. The relation of psychic therapy in medicine, like many other more modern editions, is in its embryonic stage. Psychology comes from the Greek word meaning a discourse upon the organs of thought and judgment, or organization of the body signifying reason and understanding. The mind and cortical nerve centers control the body to keep it in health and vigor. When there comes a disorganization in these parts it manifests itself by disease; then our medicines and therapeutic appliances are used to assist nature in keeping up her equilibrium until restored by nature's process. Psychiatry, yet in its infancy, seems to have met with but little favoritism with our profession. Medical literature is bringing more forcibly to our profession the value of suggestion, and promises for the future brighter results than have heretofore been recognized. Those who profess to be proficient in the art of suggestion and hypnotism realize that even with its limitations it should receive a place in the category of therapeutics. Hypnotism was slow to be recognized by the profession as of therapeutic value, and it is still slower in countenancing what has now come to be known as suggestion or psychic influence.

We hope that in the near future the profession will universally realize the importance of giving this special branch of therapy some consideration; we cannot expect much from a special branch of therapeutics until it merges from its elementary steps. There are many ways of using psychic influence for a therapeutic purpose, and all apparently will show a reason that points to success as all things admit of variety. The object sought to be obtained, whether conscientiously recognized or not, is to stimulate nature. I do not think we should limit our treatment of disease wholly, to the narrow channel of administering drugs, application of electro-therapeutics, etc. But the psychic influence in the sick chamber plays an important roll in assisting your drugs,

* Read before the Garrard County Medical Society, June 22, 1905.

electro-therapeutics, or whatever appliance you have at your command to assist nature in combating the malady. I believe much of the ability with which the physician gains the confidence of his patient is by suggestion and influencing him psychologically, and this will also greatly influence the action of his treatment. This is not limited to that long list of neurotic conditions he is so often called on to treat, but applies to many others, from a psychological and a physiological aspect, and we all appreciate the influence of our patients' mind on his or her disease. By adding this to our amenitarium of therapy it will be found of great advantage; especially in that class of affections such as acute melancholia hysteria, cardiac neurosis, nervous gastritis, etc. We can more greatly appreciate psychic influence as an assistant in our practice of therapeutics by viewing the investigations and observations of such men as Sir Charles Bell, Peter of Cartoni, Darwin, Dr. Pilgrim, and Dr. Beaumont; the latter had the opportunity of experimenting for many months on a person whose stomach was exposed to inspection by accident, and he states that mental emotion invariably produced indigestion and disease of the lining mucous membrane of the stomach. Sufficient demonstration of the direct manner in which the mind may disorder the blood, is made by Dr. Moore in the power of the soul over the body.

It is well for us to recognize other phenomena:

Sudden fear increases the peristaltic action of our secretions, whereas anxiety and grief diminish it; grief has been known to produce obstinate cases of constipation. Sorrow of any kind, sympathy and pity, act on the bowels; all strong passion are apt to make the muscles tremble and influence the heart's action. This is especially the case not only with all aggravated forms of fear, with terror and rage, but is also the case with anger and even joy. In fear the blood is not transferred with the same force as when the heart is at its equilibrium. Settled malice and envy give rise to jaundice, it is said, by causing the biliary matter to be reabsorbed into the capillary blood vessels of the liver, instead of being carried out by the branches of the bile duct. We read in various languages of the lightness of heart, paleness of fear, breathlessness of surprise, of the trembling of passion, of bowels of compassion, of the jaundiced eye of envy, and all these figures of bodily truths are recognized in universal experience. Sir Charles Bell has shown in the anatomy of expression how close and extensive is the connection of the organs that sustain life and the muscular system of the face, neck and chest. That the more vital organs, the heart and

lungs, are influenced through impulses transmitted through the pneumogastric nerve is well recognized; these vital organs have no feeling when we touch them, yet they are alive with glowing vitality ready to move with the slightest impulse, and are much affected by the emotions and changes of the mind.

The frame of the body, constituted for the support of the vital functions, becomes the instrument of expression. An extensive class of passions influences the heart in its many neuroses and affects that sensibility which governs the muscles of respiration, calling them into operation so that they become an undeviating mark of certain states or conditions of the mind. There is a reflection of a motion from every person upon every other, this is produced by people being led to cherish the same feeling, thus producing the same outward manifestation. The very contagion of disease is made more powerful by persons being afraid and dwelling much on the danger of infection.

If we have a certain feeling of trust in persons, say our neighbors, or our friends, or our party, or our associates, or our special companions, then we are inclined to act as they act, and we come to share their feelings, their affections, and their antipathies. When we have a great admiration for anyone for his courage, or his magnanimity, we are especially led to copy him and be influenced mentally. In this way we can account for those violent convulsions which have been produced sympathetically, by religious and other forms of excitement.

We have a melancholy record of these in Hecker's work, the "Epidemic of the Middle Ages." Such was the dancing mania which spread over so many countries in the fourteenth century. We have a number of cases collected by Moore in "Power of the Soul Over the Body," he mentions the strange delusions that seized the minds of men in Germany immediately after the effects of the black death had subsided. The delusion took the form of a wild dance, known as that of St. John, or St. Vitus; it was propagated like a demoniacal epidemic over the whole of Germany and the neighboring countries; the sufferers formed circles hand in hand and continued dancing for hours in wild delirium until they fell to the ground from exhaustion.

We have instances of the same kind in the convulsionaries who appeared in France in the last century and we have like example in the present day in this country. These affections seem to be produced by persons entering into the feelings of those with whom they sympathize; they can be subdued, not by reasoning or commands, but by counter irritation—that is, an idea raising a very different feeling.

A great foreign physician had a number of patients seized with epileptic fits in a hospital, from sympathy with a person who had fallen into convulsions before them. He was puzzled how to act, but reflecting for awhile that they were produced by an impression on the mind, he eradicated them by still stronger impressions and directed that red hot irons be prepared and applied to the first person who subsequently had a fit. The consequence was that no one was seized afterward.

A French practitioner of great merit relates that in a convent of nuns, one of the fair inmates was seized with a strong impulse to mew and soon the whole sisterhood followed her example and mewed regularly every day for hours together, until they were informed that a company of soldiers would surround the convent to whip the holy sisterhood, and they promised to mew no more.

Carden relates similar instances which, instead of being confined to one nunnery, spread from cloister to cloister throughout the whole of Europe. This puts us in the midst of a subject that has never been cleared up, the reaction of mind and body. It has been demonstrated and proven that emotion produces a certain bodily state or disease. Dr. Braid, in his very curious experiments as to hypnotism, found that a person put into the attitude of devotion became devout. However I am in no position to speak scientifically on this subject. Association of ideas seems to play an important role; if we take the attitude of striking, the idea of fighting will be suggested; if the expression of affection or of pity is assumed, it will call up the feeling associated with it.

In considering hope it gives life and spring to our whole nervous system as far as it is influenced by the grey matter of the brain. Fear produces an agony and anxiety about the heart that cannot be described, and it may be said to paralyze, showing the great emotional nature by mental impressions.

Terror causes the blood to leave the external parts of the economy, the countenance becomes livid, the brain excited, the large arteries distended, the muscles become rigid, and faintness and perhaps sudden death ensues. Or by observing him further it will be seen that there is a spasm on his chest, involving muscles of respiration, he cannot breathe freely, the chest is elevated, the muscles of neck and shoulders are inactive, and his breathing is short and rapid; there is convulsive motions of his lips, his heart is palpitating, his lips and cheeks are ashy pale; there is an exudation of perspiration, but the surface is cold, hence the term cold sweat; there is salivary disturbance, the mouth is dry, and

the pupils dilated. I have noticed, under slight fear, a tendency to yawn.

There has been much said about maternal impressions. I do not believe them improbable—the reports of many interesting and merited cases are scattered through medical literature. Dr. Kiernen, of Chicago, has written a most interesting article on maternal impressions and he reports many interesting cases. The theory of mental impressions is the groundwork on which is constructed "Elsie Venner," that remarkable novel by Oliver Wendall Holmes. Sir Walter Scott in "Red Gauntlet," avowed his faith in the influence of maternal impressions on the foetus. Hawthorne in the "Scarlet Letter," annunciates "Pearl," the daughter of "Hester," and "Mr. Dimminsedale" taking much the same view of maternal impressions that Dr. Holmes does in "Elsie Venner." Maternal impressions, like all phenomena in nature, are not authoritatively accounted for; many theories are advanced by scientists, and many reported cases come before us of the impressions photographically made upon the foetus. A most interesting case of this sort is reported by an Indiana physician. A young woman consulted him for cessation of menses; denying intercourse she was given purgatives and oxelate of cerium. She had been having pains for a week, and on examination he found a foetus partially born; explosive pain came on and it was born. This foetus was doubled from the waist down, and on a space one and a half inches long was a mark simulating a fiddle bow; there were three distinct arms, and a tumor resembling a fiddle, the mark for strings, bridge, and everything complete. The patient had had intercourse with a man within ten feet of where a fiddler was playing, at whom she was looking while copulating; soon after intercourse she talked with the fiddler who struck her in play with the bow, whereupon she took it and tried to play with it. This case illustrates how, photographically, the influence of maternal impressions is exerted on the foetus.

I have mentioned these conditions and reports to confirm the great influence emotions have over the physiological economy. After viewing preceding reports and conclusions as observed by many eminent writers and investigators, we cannot help but recognize the magnitude and the important influence of the mind as applied in our management of the sick. In dealing with the hysterical, hystero-epileptic female, and the many neuroses that cause us so many weary hours and restless nights, how we have craved a remedy that would soothe and tranquilize the deranged and irritable nervous system, with nothing at our command other than a placebo. After realizing

the absence of virtue in such a remedy with no physiological activity whatever, how do we account for the good results so often obtained? With our soothing conversation, our commanding dignity, our pleasant manner, our ability to impress upon the patient that his or her disease is not attended with any grave pathological process, is part of our professional ability.

We trust to nature, that wonder which we cannot explain, to act and perform the miracle beyond the power of humanity, to carry them to recovery. The power of suggestion, whether in artificial or natural delirium, is universally recognized; the mind is open to suggestions from without and these often become controlling ideas. Hence it is imperative that the attendant should be on his guard as to what he says and does in the presence of the patient. An instance is related by Carpenter in which a certain eminent physician lost a number of his patients in fever by their jumping from the window; a fact accounted for at once when we come to hear that he was stupid enough to caution the attendant in the hearing of his patient against the possibility of such an event. This brings us to another question of grave importance—the management of attendants and immediate members of the household to not allow them to be cognizant of the fact that there is any degree of excitement or uneasiness, no matter how extensive the gravity of the patient's illness. You will note the grave influence of this in handling maternity cases, by expressing to the portuant woman the normality, impressing on her to be courageous. It is the census of opinion among medical writers that fright may predispose portuant women to post partum hemorrhage, retained placenta, uterine inertia, etc. Every physician possesses some natural fitness for this work, but all alike require development that comes only as the reward of patience, perserverence and practice intelligently applied.

FAILURES!*

By R. N. FILIATREAN, M. D., Knottsville, Ky.

As to-day finds us assembled for the discussion of any or all kinds of subjects pertaining to the practice of medicine, with a purpose to our mutual interest and benefit, I have chosen one which seems to be out of the ordinary, in that during my four years' association with the society I have not heard it discussed. It is a subject, too, which has likely added to the sum total of the experience of each member here. At any rate my personal experience has been dotted here and there

with many examples of this particular phase of medical practice, "Failure." And my purpose is not that I may swell up and endanger the bearings of my vest buttons, but rather that by an enumeration of a few of the most flagrant errors, a discussion may be had as to ways and means of reducing same; thereby not only conducing to my own betterment but perhaps to the betterment and greater safety of poor suffering humanity.

A favorite comparison of Dr. Drury's was that a young physician was like a newly hatched wasp, "biggest when born;" but that after a few day's exposure to the sunshine of experience he would assume his normal size. Now the first disparity between theory and practice came into my life when I was in the first stages of the new born wasp period, in that I soon saw the shackles of idealism fall away from the real thing in the practice of medicine. The calm placid exterior of the wise old preceptor was sufficient to lead the tyro to look only to the roseate side of things, and therefore build his castles and ground his ambitions—little dreaming that under this apparent calm ran a deep, turbulent stream carrying therein many hidden cares and untold mental worries and anxieties over past cases, lost by accident or otherwise, or over present cases pending dissolution. So the first failure I wish to record is the failure to find the real practical thing in the doctor's life equal to the ideal. Some patients go on down to the grave in defiance of our most strenuous efforts; while others, over whom has been pronounced the gravest prognosis, the family prepared for a fatal issue and consoled in the best way possible in anticipation of the sad event, get well.

Then the little things that come up in the daily rounds—are we not prone sometimes, in the hurry to reach the more urgent cases, to treat as trivial, or imaginary, some minor ailment in a patient to find in a few days that he has sought and found a more cordial hearing to his plea for help, and hence has not only dropped doctor No. 1, but that he has buckled on his armor in defense and praise of some other doctor? This is another kind of failure, because this man's mind has not been relieved of its load of gloomy forebodings by instilling there in its stead the germs of hope and good cheer.

I wonder if it has ever happened to any of you, on finding an apparently slow and unprogressive labor, to leave it and make a few calls, and to find on your return that in the meantime labor has been completed by one or two mighty long and terrible pains?

One time while seeing a case of scarlet fever, the mother asked me to leave her something for baby and Johnnie's sour stomach.

* Read before Daviess County Medical Society, June 20, 1905.

I left her some bismuth, and went my way to be hastily recalled in four hours, and arriving found baby dead and Johnnie nearly so, showing a well-marked scarlet eruption. This was a failure to properly examine those children at the noon call, and there and then to institute a suitable line of treatment.

Then another source of mistakes has been the folly of holding on to serious cases without counsel, for monetary or other reasons, only to find, if the end proves disastrous, that we are blamed for not getting counsel, and this—although done in good faith, perhaps to hold down the family's expenses—is failure to protect oneself properly.

Now for the final case: I was called to see a woman who, the husband said, had toothache. On arriving found her complaining bitterly of a general soreness over whole body, bowels tied up, urine scanty, temperature 103 F., pulse 110; in fact she was one-third aches and pains and the other two-thirds unexcreted dejecta. Two old snags of teeth did seem to be doing lots of mischief, so I extracted them and gave her 10 grains calomel to extract some of the other two-thirds; in two days was summoned to return, as "wife's jaw was broken and something must be done." Well, I found mercurial stomatitis and what proved to be a beginning periostitis of the inferior maxillary bone which led on to extensive necrosis and suppuration in adjacent tissues. I worked hard on this case for a time, but failed to treat it to the end and failed to hold that family's confidence or friendship, and barely escaped being mixed up in a damage suit. The man said afterwards that I was a d— fool for giving calomel in such a case, and I guess he was right. It's to my sorrow that I failed to consult him before giving it. Now a question: had this necrosis begun prior to the tooth pulling, or was it due to the pulling, or was it a mixture of both aided and helped on by the existing auto-intoxication from the long-locked up secretions and sluggish emunctories? The books describe a mercurial periostitis, but would calomel in such a case be more likely to salivate?

Gentlemen, in my part of the woods there are many failures—they lurk in waiting for us in the most unexpected places and fall upon us without a moment's warning; but to enumerate further would only serve to tire you more, and this I trust will suffice to elicit a free and candid discussion as to methods best calculated to lead farther up the road of success with fewer mile posts marked "Failure." Then, too, in this kind of a discussion we can find who among us has had no failures—I want to find out who to send for when I get sick.

SOME OF THE ADVANTAGES TO BE DERIVED FROM THE USE OF SMALL AND FREQUENTLY REPEATED DOSES OF MEDICINE.*

By ARCH DIXON, M. D., Henderson, Ky.

A short time ago the Filson Club, of Louisville, issued its twentieth publication, which was "The History of the Medical Department of Transylvania University," by Dr. Robert Peter. This is a most interesting document and should be read by every physician who takes a pride in Kentucky medicine. What strikes one more forcibly, perhaps, than anything else in reading about this old-time institution and the old-time doctors who made it famous, is the radical change which has taken place in the practice of medicine; especially is this noticeable in the therapeutical application of remedies. As an instance of this great change I quote the following from the sketch of the life of Doctor John Esten Cooke, who was called to the chair of Theory and Practice of Medicine in that grand old University in 1827: "Amongst all these remedies, calomel was the chief reliance and was given by him in doses not measured by the balance but by the effect they produced; so that in the latter days of practice—notably during the epidemic of cholera in Lexington in 1833—he absolutely resorted to tablespoonful doses of this mercurial, repeated *pro re nata*, actually giving about one pound in one day to a young patient without fatal results. Two cases may be quoted from his own paper on the Transylvania Medical Journal and from Dr. Lunsford P. Vandell's "Memoir of Doctor Cooke," in the American Practitioner:

"William Douglas, a student in theology, took a tablespoonful (about two ounces) every six hours for three days in succession, having taken the same quantity the evening before; in all, thirteen tablespoonfuls. He was in collapse when he took the first dose; on the third morning after beginning this treatment his discharges were found to have become thick and green, and Doctor Cooke thought he would have recovered but for the indiscretion of his attendant, who had him to walk across a large room from one bed to another more than once. Hiccough came on, the patient became delirious, and died on the sixth day.

But another patient recovered about this time under similar treatment, and still lives I believe—a useful Episcopal clergyman and an illustration of the extent to which calomel

* Read before the Henderson County Medical Society June 12, 1905.

may be employed in some diseases without injury to health. Mr. Brittan, a young theological student, took a tablespoonful of calomel soon after having had several watery discharges. He was advised to repeat the dose every six hours until the watery discharges ceased. He took that day four, and the next three, of these doses, the discharges not ceasing until sometime after the seventh dose had been taken. He took, moreover, three similar doses during the same time, having thrown up three. The repeated doses were given immediately after the *regular ones* were thrown up. Bilious discharges appeared on the evening of the second day and were kept up by tincture of aloes, and occasionally by pills of aloes and rhubarb, for a week. The patient was somewhat salivated but recovered. I saw him a number of years afterwards in perfect health."

In those days calomel was the *sine qua non*, and other drugs were given in doses the bare mention of which to-day would make us stand aghast, but calomel and the lancet was the treatment relied upon to take the trick. I mention this old-time practice, and not such *old time* either, for many of the older members of the profession now living gave and are giving to-day what are considered gigantic doses by the majority of us, for the reason that I wish to direct attention to some of the advantages to be derived from the use of small and frequently repeated doses of medicine in comparison with the large doses formerly used, and still used by some.

To Ringer, perhaps more than another, we are indebted for the almost radical change which has taken place in the administration of remedies during the last two or three decades. The subject of small and often repeated doses is a very important one, and one regarding which it is very difficult to establish any arbitrary rules. In chronic diseases, when it is necessary to continue the treatment for a long time, the plan of administering medicine in larger doses and at longer intervals is probably the best. For instance, in the treatment of anemia when we wish to give some preparation of iron, it would hardly be necessary to administer it oftener than three times daily.

Again, in certain cases it may be advisable to produce the full effect of the drug at a single dose, as in the administration of a cathartic, or of a single large dose of quinine to reduce the temperature of malaria, etc. Of course all remedies given for a tonic effect are usually (and properly) exhibited at intervals of about six hours, either before or after meals, as the case may be. In many cases however, it is desired to keep up a continued effect and the question arises whether

we can accomplish the purpose better by giving the drugs in small doses at frequent intervals, than by exhibiting them in large doses at much longer intervals, the total quantity of the drug in the end being perhaps the same, or nearly so, in either case.

It should be borne in mind that there are certain drugs which are absorbed rapidly and produce their effect upon the system in a very short time, and they may also be eliminated very rapidly, while others act slowly and are eliminated at much longer intervals, and while I do not intend to enter into a scientific discussion of the action of remedies, it cannot be too strongly urged that a knowledge of the physiological action of drugs is extremely essential to their proper and safe administration. Still, the results reached by physiologist and clinician are often at variance.

Hare says, "Rational therapeutics at the present day does not consist in a knowledge of doses and the materia medica, but it exists as a complex art in which knowledge and its proper appreciation, based on common-sense principles, go hand in hand;" all of which I endorse. The statements I shall make are based on clinical facts and from personal observation. First of all let it be said that, though I am a firm believer in the efficacy of small and frequently repeated doses of medicine, I have no patience with therapeutic nihilism, nor am I a homeopathist. Nor, indeed, do I think it essential to use a large and varied assortment of drugs. Much better work can be accomplished by a few remedies, the physiological action and therapeutical properties of which are well-known, than by the use of a larger number of which we know very little.

Long ago I began the use of remedies in smaller and oftener repeated doses than I had been taught by text books and lectures. I found that aconite, three to five drops, put in one-third of a tumblerful of water and given in teaspoonful doses every fifteen minutes or half hour, produced much better results than when given in doses as laid down in the dispensatory. Especially was this true with children. In many cases of febrile movement, with dry hot skin, a full bounding pulse, the mucous membrane of the throat and nose probably dry and inflamed, aconite given in this way often produces almost miraculous results, preparing the system for the reception of other remedies which may be indicated. In commencing so-called cold in the head, aconite is a most useful remedy, as it is also in cardiac hypertrophy with palpitation, severe headache, facial neuralgia and disturbances of the nervous system due to increased force of the heart beat. A tablet, one one-hundredth grain of

atropia in a goblet of water, given in teaspoonful doses every fifteen minutes or half-hour, is a most excellent remedy in spasmodic croup.

In cases of summer diarrhoea, atropia exercises an influence altogether helpful, especially in those cases where the circulation is weak and nervous symptoms are frequent. In the treatment of those diseases with pronounced throat inflammation, as scarlet fever, tonsillitis, diphtheria, stomatitis, etc., chlorate of potash given in one-sixth to one-half grain doses every half hour will produce better results than when given in larger doses, without the danger of the evil effects resulting from accumulation of the drug in the system and consequent kidney and other troubles which sometimes happen. In obstinate cases of urticaria I have found nothing to relieve so quickly as salicylate of soda in one-half to two grain doses every half hour or hour. Urticaria is often produced by the administration of drugs, more frequently perhaps by large doses of balsam of capaiba in cases of urethritis, cystitis, etc., and it may seem strange to you when I make the statement that a single drop or one-half drop of the same drug given every one-half hour, will often control the intolerable itching and the eruption will disappear. I have no explanation to offer, but I make the statement upon the authority of others, and personally have often observed the efficacy of the treatment, although not so frequently as in the treatment by the salicylate of sodium. Fowler's solution of the liquor potassii arsenitis, one-fourth drop doses every half hour for six or eight doses, will often relieve the vomiting which occurs after a debauch. It will also relieve the morning vomiting of drunkards and is of decided benefit in the sympathetic nausea and vomiting of pregnancy. The bromides are largely used in the treatment of nervous and febrile disturbances of children, but an objection to them is the fact that little patients do not take them readily because of the taste; the bromide of sodium is, perhaps, as little disagreeable as any of the preparations. This objection can be avoided by giving small doses frequently repeated; for instance a few grains dissolved in half a tumblerful of water, a teaspoonful representing one-half a grain, administered every fifteen minutes. When given in this manner, the bromides often prove of great benefit in the nervous disturbances arising from dentition and other causes, and in relieving the fever which in children usually attends slight degree of excitement of any kind.

It may be well to remember that a temperature which might indicate a sickness of considerable gravity in an adult, if it occurs in a child may be of comparatively little importance. In such cases the bromides administer-

ed in doses such as I have indicated every ten or fifteen minutes, will often prove of great benefit. Children often vomit from very slight causes and are liable to suffer from diarrhoea and vomiting which have no other assignable cause than disturbance of digestion. One-half to drop doses of the wine of ipecac, repeated every 15 to 20 minutes, will often produce the most marked relief from the nausea and vomiting, and from the diarrhoea. Given in this way it creates no nausea and is easily taken.

A single drop of tr. nux vomica given every 10 minutes will often produce most marked relief in sick headache not of a neuralgic origin.

It is well known that cantharides, when given in large doses is liable to cause inflammation of the urinary tract; but it has been found that a single drop or even one-half a drop of the tincture, every half-hour or hour, will in many cases relieve vesical catarrh.

Digitalis is another drug the administration of which, in small and oft repeated doses, I do not hesitate to say is attended with more benefits than in larger doses at longer intervals. A drop of the tincture of digitalis, given to a patient suffering from symptoms due to organic disease of the heart, when digitalis is indicated, at intervals of half hour to an hour, according to the severity of the symptoms, will often give greater relief than larger doses and without the liability of ill effects. For the diarrhoea of children, accompanied with slight inflammation, straining and the passage of jelly-looking matter, but not true dysentery, five drops of castor oil, given every hour in water with sugar and acacia is an excellent remedy.

In the treatment of orchitis and epididymitis I have found nothing that gives greater relief in a short time than drop doses of tincture of pulsatilla given every one-half hour; the pain, swelling and inflammation soon subside and the patient becomes more comfortable. It is also useful in dysmenorrhea not of a membranous, obstructive or neuralgic character.

In cases of amenorrhea not dependent on anemia, benefit may be derived from one drop doses of ergot, fld. extract, given every half-hour for 5 or 6 hours the day previous to the expected flow and again on the day it should occur. Tr. hamamelis administered in two or three drop doses every half hour will often control hemorrhages from the nose, uterus or from hemorrhoids.

Tr. belladonna in drop doses every half-hour is a good remedy in nasal catarrh and bronchitis accompanied by free secretion. In cases of pulmonary oedema with failure of heart power, belladonna thus administered is of benefit in retarding the exudation of serum and in overcoming the heart failure. In neu-

ralgia about the face and head I have found tr. gelsemium in one or two minim doses every 15 minutes or half hour, of decided benefit. In contrast to the enormous doses of calomel, as noted in the beginning of this paper, it will be interesting to observe the beneficial effects of that drug in exceedingly small doses. Long ago Trousseau called attention to the fact that 1-60 th. of a grain of calomel taken every hour for 10 or 12 hours, would relieve the headache of syphilis occurring at night; the relief is very marked by the second or third night.

Nursing children often vomit or regurgitate their food. This has been repeatedly relieved in my experience by giving them a teaspoonful of a solution of one grain of calomel to the pint of water every 10 or 15 minutes. In order to dissolve it the calomel should first be put into an ounce of lime-water and then into the pint of pure water; 1-24th of a grain of mercury, with chalk, given every 15 to 20 minutes is often of great benefit in the vomiting and non-inflammatory diarrhoea of children. When the diarrhoea is accompanied by mucous passages, indicative of a certain degree of inflammatory action or entero-colitis, benefit will be derived from the administration of one teaspoonful of a solution of bichloride of mercury, one grain to the quart of water, every hour. Arsenite of copper, 1-100 gr. in 1-2 glass of water, a teaspoonful to be given every 15 minutes or half hour, is also a most excellent remedy in cases when the diarrhoea is due to fermentation.

In the treatment of croup I know of nothing which gives such satisfactory results as the use of iodized calcium (calcidin) in small doses, 1-8 gr. every 10 or 15 minutes; this supplemented by one or two small doses of apomorphia, will generally afford prompt relief.

Pilocarpine in small and frequently repeated doses is almost a specific in those fulminant sthenic cases of erysipelas which we so often meet. It should never be given in asthenic cases on account of its depressing effects.

I could enumerate many other remedies which have served me well in small and oft repeated doses, but the above will probably suffice. After all it is the active principle which does the work, and for the past three or four years I have used them almost exclusively. If we wish to get the effect of opium quickly we give morphine; of aconite, we give aconitine; of digitalis, digitaline; of nux vomica we give strychnine, and so on.

Let us hope that in the near future we shall use fewer drugs and with greater wisdom; remember that "the practice of medicine is the practice of the healing art by all proved efficacious means of whatever kind. No mode of

bringing relief to suffering humanity is or can be excluded from the rights of any physician. Our art is truly *pro bono publico*, and all may, nay *must*, use every known means that commends itself to them.

There can in the nature of things be no monopolistic rights in medical practice. As a consequence, no body of men licensed to practice the healing art at all can be rightly prevented by any law from practicing any known efficacious measure, whether in consonance with any particular theories they may adopt or not. They may, if they are narrow-minded enough, limit themselves; that is their responsibility. If there is any thing in homeopathy every physician has a right to use it if he so wills, and the same may be said of osteopathy. If there is anything in drug therapy, or surgical operations, every homeopath and osteopath, if he is fitted for a license to practice at all, has a natural right to it, not to be taken away by any restrictive clause whatever."

—Editorial in St. Louis Med. Review, May 27, 1905.

MY FIRST CASE OF PLACENTA PREVIA CENTRALIS.*

By S. B. BUNCH, M. D., New Roe, Ky.

On December 30, 1903, I was called to see Mrs. H., 39 years old, weight 180 pounds, fair skin, blue eyes, the mother of two healthy girls, aged 13 and 15 years. Family history good, no tubercular or other hereditary tendencies.

Patient was six and one-half or seven months pregnant, had had no previous trouble. All at once, without any warning, while sitting in a chair she began to flood (without pain). I proceeded to make a digital examination, found no abrasion, no enlargement of any of the parts except the os, which was slightly enlarged, and hung straight down into the vagina, and imparted a boggy, pulpy, patulous feel to the finger. (no dilatation).

A diagnosis of placenta previa was made, and I put her on treatment for same, giving sedatives and enjoining rest in the recumbent position. All went well until January 17, 1904, just 18 days, when I was called again and found all the symptoms of my previous visit, but intensified, and the os a little dilated and more patulous. I instituted the same treatment as before, but at this time warned her husband of the danger of her trouble.

On February 22nd, I was called in haste; on my arrival found the patient on the bed, her eyes fixed, staring, nose pinched, lips livid, and the whole surface of the body wet with cold perspiration. The quantity of blood in

* Read before the Allen County Medical Society, May 5, 1905.

the chair from which she had been removed, and that on the floor underneath the bed told the story.

Upon examination found the blood clotted on the bed almost to the top of thighs, pulseless at the wrist, and speechless. I had no help and no time to wait for same; at 9:30 gave her a nypo of strychnia and proceeded to empty the uterus.

Passing index finger of left hand to the mouth of womb found it dilated to the size of a quarter of a dollar (no pains); persevering, I gradually succeeded in introducing first one, and then the second finger, and so on until finally I succeeded in dilating the external os, and to the extent sufficient to admit my finger to the internal os, which was dilated to about the size of the palm of the hand.

There was the rough surface of the placenta easily to be detected; stretching across the internal os. My first impression was to pass my hand palm down between the placenta and the material tissue, but effort convinced me that the attachment was central. I feared that the detached border would fall down into the os and upper portion of the vagina, and act as an impediment. I proceeded to drill a hole through the placenta with my finger, which was accomplished in a very short time, and knowing she had lost all the blood she could and live, I ruptured the membranes; believing one foot would make a better tampon than both I seized one foot and brought it well down; with the feeling I was master of the situation, I waited for pains.

I encouraged them by traction but none came to my relief, after waiting about two hours, proceeded to deliver by traction on the leg; this I accomplished in about thirty minutes, delivering a living boy weighing 12 1-2 pounds, but which died in a short time. The placenta was delivered manually, placed hot bottles all around her, kept up artificial heat from 2:30 in the evening until 9 a. m., the next day before pulse could be felt at wrist.

When she became conscious she would not permit me to use a douche of any kind, would not take any medicine; on the third day there was an intolerable stench about her bed and in the room; her temperature never was above normal, no septic trouble set up, she made a slow, but good recovery. Patient is living, and enjoying good health to day.

BOOK REVIEWS.

THERAPEUTICS — ITS PRINCIPLES AND PRACTICE.

H. C. Wood, Philadelphia, Twelfth Edition.

J. B. Lippincott & Co., 1905.

If the term "classic" may be applied to any

book upon such a subject, the one before us is certainly worthy of the name. For thirty years Wood's "Therapeutics" has been before the profession and it is refreshing and interesting to-day to note that the plan advocated by the distinguished author in his first edition has become the foundation for modern pharmacology. The plan referred to is the study of the effects of drugs upon the lower or experimental animals, and the elimination of the "Babel" of so-called clinical experiences from the estimated effects of any remedy, especially if not in accord with the results of laboratory findings. The plea which the author made long ago for a study of the natural history of disease, and nature's methods of cure, has become the basis for the work of many of our great research laboratories and this first requisite in the treatment of disease, when supplemented by the second requisite, knowledge of the physiological effects of the remedies to be employed, is the only way by which clinical medicine can finally attain to the dignity of a science.

"The plan of the work has been to make the physiological action of medicine the principal point in the discussion." How well the author has done this, the study of the pages on atropine, opium, strychnia, etc., will indicate, and the summary in large type of the physiological effects of drugs is at once a unique and valuable portion of the construction of the volume. The chapter on "Preliminary Considerations," regarding the action of drugs, is replete with sound philosophy and the statement that "The conscientious physician refuses to practice upon homeopathic, allopathic, or other restricted basis, but gleans therapeutic knowledge from all sources, guiding himself as far as may be by the light of reason and science but hesitating not to go beyond into the region of the unknown and uncertain when distinctly led by the lantern of empiricism," must strike every reasoning mind as the only proper course open to the honest and conscientious practitioner of to-day.

In a short discussion of the so-called law of similars or dissimilars the whole foundation of these so-called laws is swept away and the broad mind of the writer is shown by such sentences as, "A law of nature has no exceptions. If an alleged law of nature has exceptions it is not a law." How very fortunate for the future place the author may look forward to that the volume is not likely to be read or censored by some of our eminent theologians.

The appearance of the volume has been delayed by the desire to include the last revision of the pharmacopoeia, which becomes the legal standard from this time. The changes and additions are many and important and the comments upon the newer remedies are as full

as present experience justifies, and are in the main judicious. The important changes are appended, and the hope may be expressed that the strength of these potent galenicals is now finally fixed.

The volume from the printer's standpoint is unexceptionable and is a very welcome addition to the reviewer's armamentarium.

Tincture Aconite is now 10 per cent, having been reduced from 35 per cent, and Tincture Strophanthus has been increased to 10 per cent (formerly 5 per cent), thereby creating a source of possibly grave error on the part of either prescriber or dispenser, unless the prescriber plainly states which tincture he desires, by appending the title U. S. P. 1900 (or U. S. P. 1890, should he desire the stronger preparation). These remarks apply equally to several of the other tinctures, notably:

	Per Cent. Now.	Per Cent. Formerly.
Belladonna Leaves	10	15
Cannabis Indica	10	15
Colchicum Seed	10	15
Digitalis	10	15
Gelsemium	10	15
Hyoscyamus	10	15
Lobelia	10	20
Calabar Bean (Physostigma)	10	15
Stramonium	10	15
Veratrum	10	40
Syrup Ferrous Iodide.	5	10

Tincture Nux Vomica, Opium and Opium Deodorized remain as before, 10 per cent. These changes are in accord with the recommendations of the Brussel's conference as to uniformity of strength of potent remedies, and while a step in the right direction, may possibly be confusing for a while.

J. A. FLENNER.

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MANUAL OF THE DISEASES OF THE EYE.

For Students and General Practitioners.

By Charles H. May, M. D., Chief of clinic and instructor in ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1890-1903; ophthalmic surgeon to the City Hospitals, Randall's Island, New York; consulting Ophthalmologist to the French Hospital and to the Red Cross Hospital, New York; adjunct Ophthalmic Surgeon to Mt. Siani Hospital, New York, etc.

Fourth Edition, Revised. With 360 original illustrations, including 21 plates, with 60 colored figures.

New York, William Wood & Co., 1905.

In the fourth edition of this valuable manual the author has adhered to the plan of his

original volume of presenting his text in a concise and practical manner. The volume has not been increased in size over previous editions but has been revised sufficiently to bring the text up to date. New figures, including eight colored plates, have also been added. To those familiar with the older editions of this work, detailed commentary is superfluous. For the benefit of those entirely unfamiliar with the work it can be stated that the author has published what is probably the best text book ever presented to the profession. We do not wish to imply that it is a voluminous text book in which every chapter is gone into in detail, thereby making it invaluable to the ophthalmologist, for that is not the purpose of the work. It has been prepared with special reference to the wants of the student and general practitioner. This has been accomplished by omitting such detail as could only be of interest to the specialist and by adhering to the fundamental facts of ophthalmology, and by covering all that is essential in this branch of medicine. Those diseases which the general practitioner is most frequently called upon to treat have been described with comparative fulness. The illustrations are excellent and serve to make the text lucid, some of the additions to the new edition being especially good.

The publishers have gotten the work up in a neat volume, which, by its small size, moderate price and up-to-date text, will appeal to the busy practitioner and the student.

ADOLPH O. PFINGST.

GRAPHIC OBSERVATION OF ANKLE-CLONUS.

A. A. Eshner presents a number of observations showing a not inconsiderable variation in the frequency of the movement obtained under different conditions, between 5.8 and 8 to the second. In a healthy person it was from 7 to 7.6 in the second; in a case of hemiplegia it averaged 6.9, in myelitis 6.4 to 8, another case 6 to 8; in compression myelitis 6.2 to 6.7; lateral sclerosis 5.8 to 6.9; and in a case of probably porencephaly 7 to 7.3. In some cases reenforcement was distinctly evident, being appreciable to the examining hand and indicated in the tracings. The failure to demonstrate this with greater constancy might be due to the check by the examining hand or the elastic band used. Ankle-clonus cannot be induced in the usual manner in the healthy, and the movement excited by supporting the weight of the body on the ball of the foot requires in some degree the consent, if not the co-operation of the individual. It is therefore wanting in the significance of true clonus—Ex.

PROGRESS IN GENERAL SURGERY.

Under charge of IRVIN ABELL, A. M., M. D.,
Louisville, Ky.

A Resume of Issues Concerned in the Diagnosis and Treatment of Renal Tuberculosis.—Trauma of Mesentery.—Malposition of the Appendix as a Cause of Functional Disturbances of the Intestines.—Scopolomine-Morphine as an Adjuvant in Administration of General Anaesthesia.—Scopolomine-Morphine Anaesthesia. — The Surgical Treatment of Tubercular Lymph-Nodes.—Thyroidectomy for Exophthalmic Goitre.—Narrowing of Intestinal Lumen Following Reposition of Strangulated or Incarcerated Hernia by Operation and by Taxis.

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NARROWING OF INTESTINAL LUMEN FOLLOWING REPOSITION OF STRANGULATED OR INCARCERATED HERNIA BY OPERATION AND BY TAXIS.

By L. MEYER, *Archiv Deutsche Zeitschrift fuer Chirurgie.*

There are two classes of stenoses observed following reposition of strangulated hernia, those in which the obstructive symptoms are not relieved by the reduction, due to functional disturbance of peristalsis, necrosis, peritonitis, or the continuation of mechanical conditions such as adhesions between intestinal coils, reduction en bloc or an old stenosis; the second class of stenoses is the one with which the paper deals and consists of those cases in which the obstructive symptoms are relieved by the reduction, to return at a later date due to one of two conditions, either a ring, or canal-shaped stenosis of the gut involved in the hernia, or a stenosis due to adhesions between the intestinal surfaces, with or without a ring or canal-shaped stenosis. The histories of 23 such cases are given, 16 being inguinal hernia; 4, femoral; 2, umbilical; and one not classified. In one case the strangulation has existed two and one-half, in one five and one-half, in 11 from eleven to twenty-four hours; in one two days, in one 120 hours, not specified in eight. In ten cases no statement is made as to whether taxis was tried or not; it was successful in 3; unsuccessful in 7; in one, result not stated; and not tried in two. The small intestine was involved in each case but unfortunately a minute description of the intestine and its condition found at time of reduction, is, in the majority of cases, not given. Some mention of adhesions to sac or omentum, consistence of gut, color, whether hemorrhagic or not, mesenteric changes, condition of fluid in sac, etc., is made in but few cases. The obstruc-

tive symptoms disappeared after operation, the patient being normal until the inception of evidences of stenosis, which in most of the cases, appeared three or four weeks after operation; symptoms noted were those of chronic obstruction, colic, meteorism, pain, stools either withheld, or very frequent, with physical evidence of increased peristalsis at point of stenosis. The majority of the operations made for the relief of the stenosis were done from two to six months after the reduction of the hernia, two came slightly earlier, and four came later, twenty months, two years, fourteen years, and fifteen years. Of the twenty-three cases, seventeen were operated and five were not. Of the seventeen operations, nine were resections, five were enteroanastomoses, and three were operated by an incision through the stenosis in the longitudinal axis of gut, and closed by sutures, the line of which ran at right angles to the long axis of gut. There were three deaths, all following enteroanastomosis. The five cases not operated, all died. The site of the stenosis corresponded to the portion of gut caught by the constricting ring, in some instances there being only one, in others two; when the portion of gut between these two points became involved, the canal form of stenosis was produced. The contraction depended on the destruction of the mucous membrane at the points of pressure with subsequent ulceration. The proximal end of gut usually showed changes ordinarily seen with obstruction to the faecal stream. The adhesions causing stenosis were of two kinds; peritoneal, and stenosis were of two kinds—peritoneal and adhesive peritonitis.

The author mentions fourteen cases collected by Kukula, in which there was marked bleeding from the intestine following the reduction of strangulated hernia; when this bleeding comes immediately after the reduction it may be the blood collected in the section of intestine held in the hernial sac, as a result of the intense congestion; when late, one week or more, it is due to changes in the intestinal wall at site of constriction, and frequently precedes the formation of a late stenosis, both conditions depending on ulceration of the mucosa, following circulatory disturbances as a result of pressure. In conclusion the author counsels a minute and careful inspection of the intestine in each case before returning it to the abdomen, realizing the difficulty of determining the amount of injury in each case, particularly since this injury is practically always to the mucosa. It has been suggested to make a control incision down to the mucosa in doubtful cases, but this is to be rejected. In cases where the injury is plainly present he advises resection.

THYROIDECTOMY FOR EXOPHTHALMIC GOITRE.

By FRANK HARTLEY, *Annals of Surgery*, July

Dr. Hartley bases the treatment of exophthalmic goitre upon five facts, which he enumerates as follows: 1. That, "the whole story of Basedow's disease lies in the thyroid gland." 2. That, "chemically it makes no difference whether the secretion of the gland is increased or is chemically altered as the result of changes in the blood, in the alimentary canal, or in the central nervous system. The fact remains that the removal of the growing gland does away with the symptoms and upon the failure to remove the diseased gland depends the failure to cure." 3. That, "the characteristic pathological change in the gland is a diffuse parenchymatous hypertrophy. When goitre is endemic, the condition is engrafted upon it." 4. That, "the secretions of the gland in the diffuse parenchymatous hypertrophy is increased in quantity and is altered in quality." 5. That, "the complete removal of the gland rarely fails to show signs of degeneration in the central nervous system, the acute form of which is tetany, the chronic form, cachexia thyreopriva." He refers to several groups of cases that have been reported and sums up that, in all cases where sufficient gland has been removed, the pulse rate has fallen in forty-eight hours to 80 and 100 beats per minute. Exophthalmos often persists for two years or more. In numerous cases, a second operation has been necessary to remove still more gland structure before relief was gotten. The two most undesired complications have been found to be tetany and sudden death, occurring during or immediately after operation, though both are rare. These sudden deaths are probably due to overexcitation and exhaustion of the nerve centers of the heart and respiratory organs, induced by autointoxication from the hypertrophied thyroid gland. Medical treatment, combined with rest in bed, and X-ray treatment should always be tried first, reserving operative treatment for the final step, though operation should not be delayed after medical treatment proves inefficient. The author gives a number of cases with clinical history and result of operative interference.

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THE SURGICAL TREATMENT OF TUBERCULAR CERVICAL LYMPH-NODES.

By CHARLES N. DOWD, *Annals of Surgery*, July.

The Author contributes a most interesting article based upon a study of available statistics and an operative experience of 136 cases, 100 of which form the basis of his report.

The impressions he gains from the statistics are. 1. The disease is a serious one, and often leads to tuberculosis of the lungs or other parts of the body. 2. The records from thorough removal of the nodes are better than those from the partial removal or from palliative measures. 3. The prognosis is better in children than in adults.

In his 100 cases heredity seems much less important than environments as an etiological factor. The throat was apparently the most common portal of infection. He advocates incisions which parallel the natural creases of the neck, in order to avoid a disfiguring scar. In the removal of the nodes he advises minute dissection, avoiding the removal en masse, taking away only those tissues which are distinctly infiltrated with the tubercular process. He advises caution with reference to the protection of the internal jugular vein, the spinal accessory nerve, and the lower fibres of the facial nerve. In his series of cases the internal jugular has been ligated five times without any ill effect. It is generally believed to be a harmless procedure, although at least three fatal cases have been reported. Baldwin reports ligating both internal jugulars at one operation without ill effect. Injury to the lower fibres of the facial nerve lead to paralysis of muscle fibre with subsequent deformity. The late results of his 100 cases show only one case of pulmonary tuberculosis, and three cases of bone disease; some have had second operations and some show quiescent nodes. His conclusions are as follows: The infection occurred through the mucous membrane of the pharynx, nares, or fauces in 86 per cent of his cases.

The disease shows a tendency to extend to the lungs and other internal organs. Statistics indicate that this occurs in one-quarter to one-half of the cases from whom the nodes are not removed.

The thorough removal of the diseased nodes by operation has given better results than any other method of treatment which the writer finds recorded.

The records of operation justify the following assurances; (a) In favorable cases: Safety of operation (many operators reporting more than 100 cases without mortality); a scar which is hardly to be seen; probable confinement to bed for two or three days; the wearing of a bandage from one and a half to three weeks; freedom from recurrence in about 75 per cent, and ultimate recovery in about 90 per cent of the cases.

(b). In less favorable cases: Safety of operation; less disfigurement from scars than discharging sinuses will cause; freedom from recurrence in 50 to 55 per cent, and ultimate cure in 70 to 75 per cent of the cases.

SCOPOLAMINE-MORPHINE AS AN ADJUNCT IN
THE ADMINISTRATION OF GENERAL
ANAESTHESIA.

By MAJOR GABRIEL SEELIG, *Annals of Surgery*,
August.

SCOPOLAMINE-MORPHINE ANAESTHESIA.

By EMIL RIES, *Annals of Surgery*, August.

In the experience of Dr. Seelig with 65 cases, this combination has been used successfully, and found to be a great aid in the administration of ether. He believes that on the amount of ether given, depends the good or bad result of the anaesthetic, and has found that by giving the combination first, a very small amount of the ether is required; in the series of cases reported, the average amount of ether administered was a fraction over two ounces per hour of anaesthesia. One half hour before the administration of the general anaesthetic of ethyl chloride-ether, one one-hundredth grain of scopolamine hydrobromate and one-sixth grain of morphine are given hypodermically, and in the 65 cases reported has seen results never before approached in his experience. Only one case vomited or retched while on the operating table; 77 per cent of the cases did not vomit at all; one-third of the cases that did vomit, vomited only once, and then only from one drachm to one ounce of clear mucus. Nausea was never pronounced, except in two cases, and vomiting never occurred earlier than two hours after operation, or until laryngeal sensibility had been regained, a very important point in that it protects the patient from the dangers of an aspiration pneumonia. The advantages observed are: lessened amount of anaesthetic necessary; absence of salivation, avoidance of the stage of excitement, marked reduction in the liability to vomit, and quiet and freedom from pain after operation.

It is the opinion of Ries, founded on a large experience, that a combination of scopolamine and morphine in certain proportion, is not only valuable as a forerunner to the administration of a general anaesthetic but that the combination itself frequently produces anaesthesia sufficient for operative purposes. The great difficulty lies in arriving at the proper proportion of each drug, too much morphine endangering the heart, while too much scopolamine causes a stage of excitement similar to atropine poisoning. For general anaesthesia, one-tenth milligramme of scopolamine and twenty-five milligrammes of morphine are given, divided into three doses and injected hypodermically two and one-half, one and one-half, and one-half hour before operation. If this does not suffice he does not increase the dose, but adds chloroform or ether. If the

case is a complete success, the patient becomes sleepy after the first injection, is fast asleep after the second, and unconscious and insensible to pain after the third. The operation may then begin one half hour later and proceed for hours without any other anaesthetic. The patients do not move or react in any way; the pulse is often rapid, up to 120, at times as slow as 40; respiration is quiet, without the disagreeable and dangerous accumulation of mucus in the mouth. The pupil is rigid, either dilated or contracted. The muscles are relaxed and blood is of normal color. The patient is returned to bed still unconscious, and continues to sleep for about 5 hours after the last injection. There is no retching or vomiting when the patient wakes up, and food can be given immediately. It is his experience that as a rule the combination does not produce complete muscular relaxation. He has used it on 72 patients, the operative procedures being both abdominal and general; of the 72, three have died, but death is ascribed to causes other than the method of anaesthesia. In the literature a number of deaths have been reported as due to the scopolamine-morphine, with very little justification, it seems to Ries. The only death directly traceable to this method of anaesthesia was the case reported by Flatau, in which, after an easy and uneventful operation on a submucous fibroid, the patient, who was exsanguinated from previous hemorrhages, succumbed six hours afterwards. Her pulse grew weaker and weaker, became intermittent, and Cheyne-Stokes respiration was observed. Some of the fatal cases may have been due to the large doses of morphine used. Favorable reports are given by Volkman on 20 cases; Bonheim on 70 cases; Wiesinger on 200 cases; Hartog on 143 cases; Greysen on 69 cases and Semon on 52 cases, a total of 554 cases.

* * * *

MALPOSITION OF THE APPENDIX AS A CAUSE
OF FUNCTIONAL DISTURBANCES OF
THE INTESTINES.

By JOSEPH A. BLAKE, *Annals of Surgery*, September.

The writer takes the stand that the relation of the appendix and mesoappendix to the caecum, without any evidence of inflammation, is frequently the cause of conditions simulating appendicitis, and demanding operative interference. He presents the following cases as proof: The first case was that of a woman forty years of age, giving history of discomfort in right lower quadrant, at intervals, covering a period of four years. Only slight nausea, slight fever, constipation, but relief of all pain on purgation. Patient was never confined to her bed. On operation, mesoappendix

was found to be very short, suspending the appendix and caecum well up under the ileocolic junction, causing a sharp bend in the appendix. The removal of the malposed appendix caused a disappearance of all symptoms.

The second case was that of a man, forty-seven years of age, and a neurasthenic, with attacks at intervals of one to two months for two years. The symptoms were similar to those of the first case. On operation the appendix was found implanted at the axial end of the caecum, four inches in length, no stricture, or sign of inflammation, mesoappendix short. Removal gave complete relief.

The third case was that of a woman, thirty-six years of age, who had suffered slight inconvenience in the appendiceal region on several occasions, but did not stop work. No signs of typical inflammation were found on operation, the appendix being four inches long and implanted in retrocaecal position, end of caecum being rolled upon itself; removal gave relief. It is the opinion of Blake that these conditions are functional, and not inflammatory, as a result of faulty descent during embryonic life.

* * * *

TRAUMA OF THE MESENTERY.

By JOHN F. ERDMAN, *American Journal Medical Sciences*, June.

The author presents three very interesting cases of injury to the mesentery as a result of trauma which produced a compressing effect upon the abdominal contents, two cases the result of damage caused by passage of a wagon wheel over abdomen, while one was the result of a wall caving in, striking man on back and bending him over the remaining portion of the wall.

First case is that of a boy six years old, having been run over by a wagon, wheel passing obliquely across abdomen. Nineteen hours after injury was received, patient's temperature was 101.2, pulse 128, abdomen rigid, distended and very tender. Through a median incision, a tear two inches long was found in the left peritoneal layer of the mesosigmoid. Further search revealed a mass of intestine ten inches long, from which the mesentery was torn; the middle portion of this piece of gut was gangrenous. A second section of gut close to this was found with its mesentery ecchymotic and gangrenous. The intestine supplied by the vessels of this portion of the mesentery, six inches in length, showed gangrenous spots and at each end of damaged mesentery the intestinal loop had a cord-like constriction. Both sections were excised and ends closed by means of Murphy buttons. Buttons passed on ninth and twentieth days respectively. Beginning of 15th day total obstruction developed, lasting twenty-four

hours, then he gradually improved until the 28th day, when obstruction again became complete. Abdomen opened, complete separation of anastomosed sections was found. Adhesions prevented ends of gut being brought into wound; lateral anastomosis made with Murphy button. Recovery followed.

Second case was a boy nine years old, run over by a wagon. Operation three hours after reception of injury; free blood in cavity; mesentery of small intestine was detached from gut in a triangular shaped area, the base of which was three and one-half inches long. Seven inches of gut was resected, employing Murphy button. Recovery.

Third case was that of a 25 year old man, injury due to falling wall, abdomen rigid, trace of blood in urine, tenderness, no dullness, and no tympany, temperature 101.5, pulse 124, respiration 32. Nine hours later no change in abdominal symptoms, temperature dropped to normal, pulse 96. Operation revealed free hemorrhage; abdomen was flushed with saline and mopped out, and twenty lacerations of mesenteric peritoneum were found, ranging from the size of a dime to one five inches long. These were repaired, drain was put in the space of Retzius, and abdomen closed. Recovery followed.

* * * *

A RESUME OF ISSUES CONCERNED IN THE DIAGNOSIS AND TREATMENT OF RENAL TUBERCULOSIS.

By MARTIN W. WARE, *American Journal Medical Sciences*, June.

The author gives us the most commonly encountered subjective clinical symptoms of renal tuberculosis, pain, pyuria, polyuria, and hematuria, together with some slight constitutional disturbances. It is an axiom that painless pyuria in adults between twenty and forty years of age, associated with symptoms of bladder irritability, and which does not yield to ordinary treatment, is, in all likelihood, tuberculosis of the bladder dependent on renal lesions; and further, when the urine is acid in reaction, tuberculosis is doubly suspected. In establishing the presence of the bacillus of tuberculosis, the use of tuberculin and animal inoculation are often of advantage, but it must be remembered that a marked reaction, following the use of tuberculin, and appearance of tubercle bacilli in numbers, when absent before, may mean that a tubercular focus elsewhere has broken down and the bacilli are being eliminated by the kidneys. To avoid such an error, a healthy guinea pig is injected in the peritoneal cavity with 10 c. c. of the urine. After six weeks the animal is killed and findings noted. Renal tuberculosis may run a painless course, while on the other

hand pain may be as severe as in renal colic. Hematuria may be the first evidence of renal tuberculosis. After being sure that renal tuberculosis is present, it is to be determined which kidney is affected, by careful examination of the bladder and a study of the ureteral orifices, and escape of urine, with, eventually, catheterization of ureter. The ureter and trigone are the center of interest. An enlarged ureteral orifice, red in appearance, injected blood vessels and hemorrhage into mucous membrane, with ulcers thereabouts, is pronounced evidence of tuberculosis of kidney of same side. Renal tuberculosis is more common in females than in males, generally between the ages of 20 and 40. It is often brought to notice from the findings of pus and blood, at which stage only does surgery offer any benefit, provided that the other kidney remains good, nephrectomy, and not nephrotomy, being the operation of choice. The percentage of operative deaths and results, since ureteral catheterization has been used as an aid to diagnosis, is much better than formerly.

THE OCULIST AND THE OPTICIAN.

Several months ago the State Board of Health of Illinois, took action against a traveling optician as a test case in order to determine the rights of opticians. The finding of the Appellate Court was rather a peculiar one, the court holding that as the optician fits spectacles to the eyes of persons of defective vision and sells them to such person, and as he does not treat or prescribe for any physical injury to or deformity of the eyes he could not be placed in the same category with the itinerate vender of drugs, or applications intended for the treatment of disease. It was held that although the fitting of glasses to the eye often relieved headache, dizziness and similar ailments, the person who sells such spectacles could hardly be accused of practicing medicine or surgery.

We have noted much reference to this opinion in the editorial columns of the special journals, some suggesting legislation against the use of drugs by the optician, and others that the optician's work be limited to cases in which the visual acuity is normal or can be made so by the aid of lenses. The supreme court of Iowa has ruled that any one may go on with the healing art as long as he does not use the words "heal" or "cure" in his advertisements. This would seem to cover the conditions of the optician who can fit glasses indiscriminately as long as he does not advertise that he is curing the sick. While it can be readily understood that in the sense of the law, which is governed by written statutes,

the optician cannot directly be accused of practicing medicine or surgery, it is a fact well known to the profession of medicine that the correction of errors of refraction is, in many instances, a therapeutic measure and one of great value. It is also a frequent observation that individuals with unsuspected conditions of the interior of the eyes are equipped with glasses which, instead of relieving the condition, only add fuel to the fire by causing additional strain. It is evident, therefore, that the treatment of eyes should be undertaken only by those thoroughly competent to examine the eyes and differentiate between diseased and healthy conditions.

It would be a difficult matter to legally draw a sharp limit to the rights of the optician further than to prohibit the use of drugs locally or constitutionally. However, the physician himself should fully appreciate the relation that should exist between the oculist and the competent optician, for the physician is consulted by a large per cent. of those patients who eventually seek the advice of the specialist. In a few instances the patient may be advised to consult the oculist, but in many instances he is simply told to go have his eyes examined, or he is directed to the optician. It would be a parallel case and an equal reflection upon his medical conferrer for the oculist, finding in one of his patients the need of general treatment, to send him to the neighboring druggist for relief.

We do not wish to convey the impression that we are antagonistic to the optician, who is as indispensable to the oculist as the druggist is to the practicing physician; however, we maintain that the profession should appreciate the fact that the optician stands in the same relation to the oculist that the pharmacist does to the physician. The work of the optician should be the dispensing of such lenses as are ordered by the oculist and the proper adjustment of the frames. It would be as unreasonable for the profession to expect all simple cases, such as presbyopia who merely need an increase in the strength of their spherical lenses at intervals of several years to consult the oculist as it would be to object to the druggist dispensing a cathartic or similar harmless medicants to his customers. However, in cases complicated with headache or other symptoms of eye strain, or in those in which the vision is defective, probably dependent upon pathological lesions in the eye, the physician should endeavor to get his patient in the hands of those who are competent to detect the cause of the defect and to apply such therapeutic measures as will be of benefit to the patient.

ADOLPH O. PFINGST.

KENTUCKY MEDICAL JOURNAL.

BEING THE

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THE ANNUAL MEETING OF THE KENTUCKY STATE MEDICAL AS- SOCIATION.

The fifty-fifth annual meeting of the association was held at the Galt House in Louisville, October 18 to 20, 1905. The meeting was a notable one for more reasons than one, but at this time it is impossible to publish more than a brief summary of the meeting. The minutes, papers and discussions will be published in subsequent issues of the Journal.

About sixty county societies were represented by delegates. The total registration was over 350, with distinguished visitors present from West Virginia and Tennessee, who were given the privileges of the floor and participated in the discussions on the papers read.

The secretary reported on the membership of the society, and the councillors of the several districts showed that the spirit of perfect organization of the medical profession in accordance with the plan proposed by the American Medical Association is receiving the support of the majority of the physicians in the State. About 2500 physicians of Kentucky are now members of the association and receive the association Journal.

The treasurer's report showed the association to be in a healthy condition financially.

On the evening of the first day, the association members were the guests of the Jefferson County Medical Society at a theatre party, and on Thursday evening a reception was held in honor of the association in the parlors of the Galt House.

The association took a decided stand in the matter of so-called patent medicine evil, and unreservedly endorsed the work that is being done by Mr. Yerkes, the commissioner of internal revenue in requiring retailers of patent medicines containing over a certain per cent of alcohol to take out a retail liquor license, in commending the work that is being carried on by the Ladies' Home Journal, Collier's Weekly, Everybody's and other lay publications, and also pledging its hearty support to the Council

of Pharmacy of the American Medical Association in its efforts to acquaint the profession with the chemical and therapeutic merits of so-called proprietary preparations.

Both the living and the dead were honored. Dr. Ouchterlony was memorialized by suitable resolutions setting forth his personal worth and merit as a man, a physician and a teacher, and the loss sustained by the society in his demise.

Dr. Steele Bailey was presented with a very handsome gold watch and chain as a token of appreciation of services rendered the society during his term as secretary for nineteen years.

Many valuable and interesting papers were read which elicited a very lively and spirited discussion. These papers were as follows:

Oration in Medicine, by Dr. J. F. McClymonds, Lexington; Oration in Surgery, by Dr. Louis Frank, Louisville; Post-partum Infections, by Dr. Edw. Speidel, Louisville; Prevention and Treatment of Post-partum Infections, by Dr. B. M. Taylor, Greensburg; Rupture of Uterus, by Dr. N. M. Garrett, Frankfort; Unique Case of Extrauterine Pregnancy, by Dr. J. R. Morrison, Louisville; Care of Breast and Nipple During Pregnancy and Puerperium, by Dr. R. M. Coleman, Lexington; College Education Preparatory to Study of Medicine, by Dr. J. M. Pryor, Lexington; The Irregular Regular, by Dr. G. E. Davis, Lawrenceburg; Hemophilia, by Dr. Irvin Abell, Louisville; Pleurisy, by Dr. J. D. Jackson, Danville; Infection and Contagion, by Dr. W. A. Jenkins, Louisville; Symposium on Gastric Ulcer—Causes, Dr. Chas. G. Lucas, Louisville; Diagnosis and Treatment, by Dr. S. F. Woody, Louisville; Surgical Aspects, by Dr. Aug. Schachner, Louisville; Practical Significance of Arterial Tension, by Dr. J. A. Flexner, Louisville; Acute Infantile Summer Diarrhoea, Dr. S. I. Harris, Philpot; Capillary Bronchitis in Infants, by Dr. R. B. Gilbert, Louisville; Gas-bacillus Infection, by Dr. R. T. Ireland, Louisville; Nature and Causes of Rheumatism, by Dr. I. G. Cecil, Louisville; Complications of Rheumatism, by Dr. H. E. McKay, Bardstown; Dionin in Diseases of the Eye, by Dr. S. G. Dabney, Louisville; The Tuberculosis Problem in the South, by Dr. D. S. Wilson, Louisville.

Owensboro was chosen as the meeting place for 1906.

The following officers were elected:

President—C. Z. Aud, Cecilia.

First Vice President—Murison Dunn, Richmond.

Second Vice President—R. M. Coleman, Paducah.

Third Vice President—J. M. Salmon, Ashland.

Secretary—James B. Bullitt, Louisville.

Treasurer—W. M. McClure, Lexington.

Councillors—Second district, D. M. Griffith, Owensboro; Fourth District, D. C. Bowen, Nolin; Fifth district, J. G. Sherrill, Louisville; Seventh district, J. T. Wesley, Middleburg; Ninth district, J. W. Kincaid, Cattlesburg; Eleventh district, G. E. Cecil, Flat Lick.

Orator in Medicine—William A. Jenkins, Louisville.

Orator in Surgery—W. O. Bullock, Lexington.

Delegate to American Medical Association—J. Garland Sherrill, Louisville.

IN MEMORIAM JOHN ARVID OUCHTERLONY, A. M., M. D., L. L. D.,
1838-1905.

Full of honors, professional and personal, Professor John A. Ouchterlony died on October 9th, 1905, and the news of his death will be received with sorrow by many thousands of busy physicians throughout the South and Southwest, who, at some time in the past thirty-five years, have sat on the benches and listened to his clear exposition of clinical medicine, or who have had the benefit of his professional skill in the diagnosis and treatment of an obscure case.

Born in Gothenborg, Sweden, on June 24th, 1838, he received a complete classical education, coming to the United States in 1857. His determination to study medicine led to his matriculating at the University of the City of New York in 1858 with Professor T. Gilliard Thomas as his preceptor. His undergraduate years were marked by hard study with close and constant application. These years were filled with financial trials and it was only by his indomitable will that he was able to keep up. He loved to talk about his student days and his association with the great teachers of that time—Van Buren, Wood, Metcalfe and Thomas.

After his graduation in 1861, he served for a time as physician to a boy's school in Western Pennsylvania, but early in 1862 he entered the Union Army. While serving as surgeon in Mississippi in the early part of 1863, he contracted dysentery and was sent North, apparently to die; after reaching Louisville he grew much better and finally decided to locate here. His first years spent here were marked by hard work and many hardships. During the winter of 1864-65, he delivered a series of clinical lectures at the City Hospital. In 1869, in company with others, he founded the Louisville Medical College; leaving there about 1876, he became Professor of Clinical Medicine and Dean of the Kentucky School of Medicine. In 1881 he was called to the

Medical Department of the University of Louisville, where in 1883 he became the Professor of Clinical Medicine, a chair that he filled with great honor to the time of his death.

In all of these years he was a hard student, a close observer, a concise and gifted writer, and one who took real pride in keeping in the front rank of his beloved profession. His skill as a diagnostician had spread far and wide through the many physicians he had trained, and his well-filled waiting-rooms were a tribute of appreciation from his former students. While a close student of medicine, he was abreast of the times in all departments; he was familiar with the art and language of many countries; his home was filled with well selected works that bore evidence of his discernment. An agreeable conversationalist, a decided preference for the company of his friends, the idol of his patients, and the inclination to be of service to any of his professional friends, were qualities that endeared him to us all.

His death was due to an attack of pneumonia, at the age of sixty-seven—at the time when he was at the height of his professional career—after carving a name and place among the great medical men of our great State, a name that will live as long as the history of the State endures.

CHARLES G. LUCAS.

October 17, 1905.

PRESCRIBING FOR REVENUE ONLY.

Louisville, Ky., Oct. 13, 1905.

To the Editor, Kentucky Medical Journal:

I have just had an experience which your editorial, and hence censorial, position justifies my reporting to you in detail. In my varied reading in medical journals and from some hazy charges which occasionally circulate, I had learned that such practices as I am about to relate do take place, but I had doubted the existence of men who practice medicine, or men who prepare medicine for the sick, capable of such venality, cupidity or stupidity as the following tale illustrates.

This afternoon a representative of the Kath Chemical Company, of Cincinnati, called on me with samples of so-called proprietary mixtures, and after asking me whether I ordered such goods, proceeded to inform me that he had a proposition which might interest me. I answered that I did not dispense medicine; but that was not the gentleman's meaning. Then the interesting proposition "came out," and it was, that if I would order the stuff they would pay me a commission of twenty-five per cent of the wholesale price through the drug-

gist who filled the prescription. I expressed at once to the suave drummer my contempt for his sugar coated bribery, and sent him with his samples away. On leaving he added an argument which he said usually carried conviction with it, viz.: that by ordering his compounds for those who do not pay fees, the physician any how got something for his services. The contemptible depths of the whole miserable business came out particularly in that last speech. It is hard for the writer to believe that any physician worthy of the name, or any pharmacist of the least dignity, would be parties to such miserable ways of getting business or money. Detection of either ought to be followed by the widest publicity and condemnation.

Sincerely yours,

J. A. FLEXNER.

Is it possible? Has it come to this, that the quarry is so openly and boldly hunted out in its very lair? Have the actions and records of physicians justified the presumption that they would be open to such a "business" proposition as that related above? Are the soul and conscience of enough physicians sufficiently dead to render it worth while for a "manufacturer" (God save the mark!) to pay men to travel around the country in the attempt to prostitute them to such nefarious business? Let us hope, no! And yet—and yet—the very assurance, glibness and openness of the attempt indicate the possibility of at least occasional success.

If you, being an honest man, were in a position of any public trust, and the direct effort were made to bribe you to secure the furtherance of some selfish enterprise, should you not resent vigorously such insult to your dignity and honesty, even to the point of bodily harm to the agent of bribery? So should the physicians of this good State put a quietus to such outrageous attempts as that related by Dr. Flexner, and by the very enthusiasm of their indignation make it unsafe for such propositions even to be broached. If such approaches are calmly submitted to, physicians will earn all the contumely they will come to possess, and the practice on the part of "manufacturers" of leading them around by the nose will go merrily on.

It is to be hoped that readers of the Journal will communicate any similar attempts which may come under their notice.

THE KENTUCKY VETERINARY MEDICAL ASSOCIATION.

The third meeting of this Association was held at Shelbyville on September 26th, Dr. F. T. Eisenman, of Louisville, occupying the

chair. Dr. James B. Bullitt, Secretary of the Kentucky Medical Association, was present by invitation. The chief subject discussed was that of tuberculosis of cattle, and what legislation should be enacted for its control and extermination. The association is of the opinion that the next legislature should be petitioned to pass an act providing for state application of the tuberculin test, and then for the slaughter of all infected animals, giving a proper indemnification to the unlucky owners of such infected cattle. As is well known, Shelby county is the largest dairy county tributary to Louisville, and the dairymen of Shelby county are deeply interested in the question and have given it much study. The dairyman's association was represented by Messrs. Stanley, Scott, Wallace and a few others, who testified to the interest felt by the owners and breeders of Shelby county. They desire to have done whatever would be to the interest of the dairyman and breeder, and realize that the destruction of infected animals is the only way to protect the remainder of their herds. Dr. Bullitt stated that the physicians of the State have a direct and personal interest in the matter, and believe that they would give earnest assistance in the passage of any equitable law having for its object the extermination of tuberculosis in the cattle of the State.

The veterinarians also desire to get a State law defining and controlling the practice of veterinary medicine in Kentucky. Such a law would do much to improve the conditions of such practice which are now unfortunately uncontrolled and somewhat chaotic. Many of our sister states have such laws, which operate much like the laws regulating medical practice amongst the human kind. The members of the Kentucky Veterinary Association bespeak support and assistance in the passage of such a law.

THE PROSPECTIVE MEDICAL LIBRARY.

At the meeting of the Jefferson County Medical Society of September 19th, on motion the old library committee was discharged and a new committee of three was appointed to take up the work. The President appointed Dr. August Schachner, Chairman; Dr. Adolph O. Pfingst and Dr. James B. Bullitt.

As was pointed out in the discussion of the matter, the Jefferson County Society is the only society in the city under whose auspices this movement can properly be carried forward. Being the representative society of the profession of the county, to which all legal practitioners of good character can gain admittance, it naturally becomes the champion of all movements which affect the welfare and

interest of the profession at large. The former library committee was handicapped by a provision that it should cooperate with similar committees from all the private societies in the City of Louisville. This provision at once rendered the committee useless, as it is not possible to secure cooperation of so many men, and nothing was attempted. The new committee is empowered to go ahead without seeking the cooperation of the private clubs, except in so far as the membership of the private clubs will contribute as individuals to the library fund.

The three medical journals published in Louisville, The Monthly Journal of Medicine and Surgery, The American Practitioner and News, and the Kentucky Medical Journal, stand ready to turn over their exchanges to the library just as soon as the management announces its readiness to receive and care for them. It is confidently expected that a large number of Louisville physicians will be found willing to enter into an agreement to contribute five dollars per year for three years to the library fund. Such a sum would go a long way toward providing current medical literature in the form of general and special weekly and monthly journals. And it might even serve further to supply a number of the more important text books as they come from the press.

Dr. Schachner, chairman of this library committee, has interested himself in the matter for some time past, and it is to be hoped and believed that under his enthusiastic guidance tangible results will soon begin to be apparent.

POST GRADUATE WORK.

To be a good physician requires labor; to continue to be a good physician requires greater labor. The price of continued attainment is the same as the price of liberty, eternal vigilance. What a melancholy spectacle it is to see a splendid man, a splendid doctor, gradually give up his habits of scientific labors, devoting so much of his time to the practice of his profession as is actually necessary to care for the clinical cases which come to him seeking advice and help. As the years go by, these once splendid men cease to yearn for the companionship and contention incident to the discussion of medical societies. They finally become rather annoyed than helped by those individuals who are always quoting the latest investigations and discoveries.

In order to keep our noses to the scientific grindstone most of us need help and a stimulus only to be found outside of ourselves. Only occasionally does there occur a great one, a soul self sufficient, able to continue its course

ever onward and upward, independent of, almost indifferent to all the other travelling the same path. For such great ones, environment does not count; they make their own environment and atmosphere, as artists term that indefinable something whose existence we feel about us when surrounded by others doing and interested in the same things which we are doing and in which we are interested.

When we take a holiday, go to some other city and observe the work of others, it is some of this "atmosphere" which we bring back with us to cheer us up in our lonely hours of defeat, or to spur us further along when smiling success waits on us. But all of us cannot do so as often as would be good for us and as we would like. Why not therefore bring this "atmosphere" to us? What more notable thing could the Jefferson County Medical Society do than arrange a regular post-graduate course to extend over six or eight months of the year, and invite members of the other county societies to the feasts? Notable men from all over the country could be gotten to come here, physiologists, pharmacologists, therapeutists, internists, surgeons, representatives of every phase of scientific medicine, and we could obtain from these men in two hours time what it would take us weeks of reading to acquire for ourselves. And after we had listened to them, and had realized the devoted labors which had made possible such splendid discourses, would we not return to our own more humble paths strengthened in the resolution to tread them more faithfully, more industriously, more honorably? It is certain that we would.

If the members of the Jefferson County Society will lend their aid to the accomplishment of such an undertaking, they will add another and a powerful argument to the cause of organization, and will help to rescue many a young man from rawness, and many an old one from staleness.

THE OHIO MEDICAL JOURNAL.

The Kentucky Medical Journal desires to extend especial greeting to its neighbor journal across the river, which made its appearance July 1st, and with October has four issues on view. In olden times children were born as babes, who crawled, then toddled, then walked. Nowadays things are done differently. Journals are born at once into man's estate, with both the appearance and strength of adult virility. Our neighbor, in looks and substance, is full grown at once and can only be complimented on handsome looks and solid substance.

Ohio has a great profession, both in numbers and in general education and attainments.

While in 1901 the State Association had only 885 members, it now has more than three thousand. The new journal stands for the idea and the spirit which has made this tremendous increase possible and inevitable, and, standing already pledged to the standard of ethics championed by the Association of State Medical Journals, the Ohio Journal can not help but exert a powerful influence in the onward and upward advance of the profession in Ohio, and add at the same time its quota to the advancement of the profession of the whole country.

COUNTY BOARD OF HEALTH.

The following resolution was offered in the House of Delegates on Oct. 19, 1905, by Dr. W. W. Richmond, of Clinton, Ky., and was unanimously adopted:

Whereas, the present manner of nominating county boards of health has proven unsatisfactory, often resulting in great worry, trouble and friction in the county societies, and the appointment of boards not working in harmony, thereby creating strife and unpleasant conditions between said boards and the respective fiscal courts, therefore,

Be it resolved, that the Kentucky State Medical Association recommends that the Board of Health of each county be selected by the State Board of Health, said appointments to be made by it upon its judgment and knowledge of the duties of a county board of health and the qualifications of the appointees necessary for good service, and that, where possible, the members be selected from the membership of the county societies.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

Carlisle and Ballard County Medical Societies met in joint session September 12th, 1905, at Big Springs, on Coon Branch. Dr. J. M. Peck was elected presiding officer and Drs. E. B. Shelton and H. T. Crouch as secretaries for the day. After prayer by Dr. R. T. Hocker the scientific program was taken up.

Dr. R. T. Hocker, of Arlington, read an able paper on "Abortion," which was freely discussed by Drs. D. P. Jouett, H. T. Crouch, E. B. Willingham, J. M. Peck and E. B. Shelton, also by Dr. Boyd, of Paducah, to

whom the courtesy of taking part in the discussion was extended.

Dr. H. T. Crouch read a paper on "Dysentery," the discussion of same being postponed until the evening session, as the society adjourned at this hour for dinner.

The evening session was opened by discussion of Dr. Crouch's paper by Drs. Baker, Hocker, Juett, Boyd, Mosby, Willingham, Shelton, Hale, Rollins and Lampkins.

In the absence of Dr. N. L. Rogers, Dr. Shelton opened discussion of "Dropsical Effusions." Dr. Peck reported an interesting case of dropsy in the puerperium, which was discussed by Dr. Juett.

A motion was made, and carried, that expenses of the session, \$12.25, be equally divided between the two societies, after which the societies adjourned.

* * * *

The Christian County Medical Society held its August meeting with Dr. Board, Supt. of the Western Kentucky Lunatic Asylum. The following members were present: Drs. Stone, Stites, Erkiletian, Austin Bell, Harned, Anderson, Woosley, Sargent, Petrie, Jackson, Stone and Croft.

Dr. Stone, of Herndon, read a very interesting paper on "Cholera Infantum" which was thoroughly discussed by the members present.

After discussion the society adjourned for dinner.

After dinner the society was again called to order, and Dr. Blakey read a very interesting paper on "Pleuritic Effusion," calling attention to the fact that many cases of pleuritic effusion are overlooked and treated for some other diseases. After discussion of the paper the society unanimously voted to extend thanks to Dr. Board for his elegant entertainment while his guests.

The society then adjourned to meet again in September.

J. W. HARNED, Sec'y.

* * * *

The Christian County Medical Society, not having any meeting in September, held a meeting on the 2nd day of October in the City Court room, Hopkinsville. Those present were Drs. Sargent, Petrie, Stites, Bell, Austin Bell, J. L. Barker, E. C. Anderson, J. W. Harned, Jackson, Haynes, Roscoe and Dennis.

Dr. Haynes, of Howell, read a very interesting paper on "Typhoid Fever, with Report of Two Cases," which was fully discussed. Dr. Roscoe, of Julian, read an interesting paper and after discussion the society adjourned to meet October 16th, 1905.

KENTUCKY MEDICAL JOURNAL.

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION.

VOL. III.

LOUISVILLE, KY., DECEMBER, 1905.

NO. 7.

PRESIDENT'S ANNUAL ADDRESS TO THE MEMBERS OF THE KEN- TUCKY MEDICAL ASSOCIA- TION, LOUISVILLE, OCTOBER 18, 1905.

By F. H. CLARKE, M. D., Lexington, Ky.

At the opening of the fiftieth meeting of this Association one is tempted to look backward for a while and review something of its past; to recall some of the great names that have helped to give Kentucky an honorable place in medical history, to glance however hastily at some of these men. Such a work might be interesting and useful; it could hardly fail to prove inspiring; but it seems to me better, more profitable, to turn our faces to the future, and to consider briefly some of the work that lies before us as an organization and as members of an organized profession.

To ask ourselves—what is the object of this organization? What is the purpose of our union? The answer to that question shall determine largely, not only the opinion of the public, and the respect and esteem by which we shall be held by it, but the success of the movement, the very existence of the organization. For if it is for mere selfish aggrandizement; if our aim is to obtain power and influence to be used for purely selfish ends, then we shall lose not only the confidence and support of the public, but our own faith in the Association and respect for it. Nothing could be more fatal to the life and work of the Association and all that it represents than that.

Since the adoption of the re-organization measures by the American Medical Association in 1901, that subject has had a large place in the thought and discussion of medical men throughout the country. I shall not stop to discuss at length either the subject of organization in general or the re-organization scheme of the Association. And yet I would be glad to impress you with a deeper sense of their importance. Governments, civilization itself are but forms and results of organization. The very term implies life and activity. The power and advantage of organization is recognized today as it never was before. Evidence of this may be seen on every side, in every great interest and movement of the day. The medical profession cannot ignore this evidence, and it is under peculiar necessity and obligation to avail itself of this power because of the great and rapidly increasing influence of medical science—and that term has

zation. The sociological relations of the medical profession were never so fully recognized either within the profession or by the public. Never before has science played so important, so prominent, a part in the great social and economic problems of the world, and we are scarcely beyond the threshold of her achievement—has done a great work for humanity and the world in the past, but not all that it might have accomplished and largely because of lack of proper organization and co-operation. Instead of being a compact, organized and disciplined army, it has been at best but an imperfectly organized and sometimes disorganized host, often wasting opportunity and energy in individual rather than united effort. But it shall surely have greater work in the future. While the sociological relations and of medical science in modern life and civil science are better recognized than they have been in the past, few realize anything like their real importance, and none can yet forecast their reach, influence and power in the future. The most thoughtful and far-seeing among us, the most enthusiastic, would stand amazed if the veil of the future were lifted for him and he could look into the coming years and see what is to be done for human life, welfare and happiness through science.

If medicine is to bear her part in that great work—and no other science will have so large a share—she has neither time nor energy to waste in divided and undirected effort. Could anything be better adapted to control and direct that work than the system embraced in the American Medical Association? Comprehensive yet flexible, it unites the medical profession of the whole country through the county and state societies in the National Association; interfering as little as possible with the rights and privileges of the individual, it at the same time binds them together in a voluntary protective union, in principle not unlike that of our national government. The primary object, the fundamental idea of this scheme is the solidarity of the profession in the United States. This in large degree has already been realized, and if nothing else had been done, this awakening—partial and imperfect as it is yet—of the profession to a sense of community of interest and work is worth all that has been expended in the re-organization movement, in money, time and

labor. It has not only increased the number of medical associations and added largely to the membership of these societies, but it has aroused them to greater activity; they are doing more work and better work. It has developed broader and deeper ethical ideas, so that we no longer look on medical ethics as petit statutes governing the conduct and relations of physicians to each other and to their patients, but as broad principles involving their relationship to humanity, grounded on justice and truth, resting in a spirit of true altruism. The maxim of Terence: "I am a man, and nothing that concerns a man do I deem of indifference to me," applies especially and in a peculiar sense to physicians.

And now with some recognition of this wider outlook, some realization of this broader field of usefulness, influence and power, with its corresponding increase of duty and responsibility we may look with clearer vision and greater earnestness at the work that lies around and before us. The chief work of the physician must always be the study of the causes, prevention and treatment of disease, and his greatest usefulness and influence will always be among his patients, friends and associates, growing out of that work, but it should not be restricted to his ordinary professional duties and it cannot be limited to that circle, however wide it may be. Every physician should be a teacher in his community in regard to sanitation. He should educate the public in hygiene and the importance of the prevention of disease. Few men outside the medical profession realize how much the prosperity of a country is dependent upon the health of its citizens and how much of disease is preventable to-day. Lord Beaconsfield appealing to the British public in the interest of sanitary laws in 1872 said: "It is impossible to overestimate the importance of the subject. After all, the first consideration of a minister should be the health of the people. A land may be covered with historic trophies, with museums of science and galleries of art, with universities and with libraries; the people may be civilized and ingenious; the country may be even famous in the annals and actions of the world, but if the population every ten years decreased, and the stature of the race every ten years diminished, the history of the country will soon be the history of the past." This is as true now as when it was spoken, and much more is known to-day of the causes and means of prevention of disease. More than that, we know to-day that the very morals of the country are in some degree dependent on State and county associations. We should not rest until every one legally authorized to practice any branch of medicine, under whatever name, is reasonably qualified. This

is a duty we owe to the people of our State, and no sensitiveness or fear of charges of personal interest should deter us for a moment.

The efforts of well-meaning, but no less mischievous philanthropists such as anti-vivisectionists and anti-vaccination cranks should not be overlooked.

Should Keep Politics Out. — The separation of the charitable institutions of the State from political control and influence is an old question in the State Medical Society, but nothing has ever been done to secure it further than discussing the matter and passing resolutions recommending it. Nearly three thousand unfortunate and helpless inmates of these institutions remain under the control of officials who owe their appointments to political influence, and whose qualifications are almost accidental; surely all the force of this Association should be used for these unfortunates and the institutions supported by the people for their benefit. It is not necessary, I am sure, to say that no reflection whatever on the officers now in control of the charitable institutions is intended. It is the system that is criticised, and the fact that they are now under efficient officers gives no assurance either of their continuance in office or of good appointments in the future. Certainly their histories furnish abundant reasons for doubt.

The three asylums for the insane contain much the largest number of inmates of the charitable institutions. Of these many are epileptics not insane, but because of their affliction they are unable to earn a living, and they cannot be kept in their homes. At present the asylums are the only places open to them except the jails. Every physician familiar with hospitals for the insane knows how troublesome, how demoralizing epileptics are in these hospitals and how unsuitable asylums are for their care and treatment; with many it is unjust, even cruel to keep them in asylums, and yet there is no other place for them in the State. Colonization under medical management, as in the Craig Colony in New York, is, I believe, the best solution of the problem of caring for this class of defectives.

Care of Inebriates. — The care and treatment of inebriates is another and even more difficult problem. It is a problem too large to discuss in this address. I might easily occupy the full time of the address with it. Every physician here has at some time, some of you many times, had to face its difficulties. You know something of the trouble, anxiety and misery inebriates cause in their homes and communities. They are sent to sanitariums, jails, work-houses, and sometimes to state asylums, only to be discharged and return to their habit, drifting lower and lower,

exhausting the patience of their friends and losing their own self respect. Many are degenerates and incurable; these should be treated as chronic-insane, but not in the same institutions with the insane. Others may be greatly improved and some practically cured by confinement and treatment for from one to two years. The State should provide a properly equipped institution for their cure and treatment.

The necessity for State care of the insane has been recognized for many years, and many counties support alms-houses for the old and infirm, but outside the larger cities there is no adequate provision throughout the State for the indigent sick. In every city throughout the civilized world hospitals are considered indispensable both from a humane and economic point of view. Is not the same principle applicable to the rural districts? Are there not many counties in the State capable of supporting hospitals which would be at the same time of great benefit to the sick, and of great professional and scientific service to physicians.

Tuberculosis Hospital Needed. — Even a brief and cursory statement of the medical needs of the State must include some mention of tuberculosis. I shall refer to only one phase of the subject, the need of hospital treatment for those suffering from tuberculosis especially the poor, and those from unsanitary homes. A sanitarium is a great boon to these, and a means of protection to others about them.

One other subject I shall mention. We should interest ourselves in the hygiene of the public schools. There are in a few cities in the State school inspectors, but the scope of their duties and authority is much too limited. Everything related to sanitation of public schools should be under competent medical officers. Healthy schools are of equal importance to the community with healthy homes. Not only are school buildings and environments proper subject for medical interest, but methods of instructions, hours of study, and the studies of the children.

"You may develop the intellectual side of people as far as you like, and you may confer upon them all the skill that training and instruction can give; but if there is not underneath all that, the firm fibre of healthy manhood and earnest desire to do well, your labor is absolutely in vain."

If time permitted I should be tempted to say something on medical education even in this city of medical schools. These, gentlemen, are some of the subjects which seem to me to demand attention from the medical profession at this time. The Committee on Legislation will present a report recommending especially

the subjects most important, or most expedient for the action of the Association; but these are all worthy of your consideration as physicians, and I trust the Association will, without neglecting the scientific program, give some attention to these practical public questions.

In the beautiful story of Esther, when the prophet revealed to the queen the conspiracy against her nation, told her of the imminent danger of the destruction of her people, he showed her how she might save them, and appealed to her to make the effort, even at the risk of her life. And then he told her that if she failed in her duty, her people should still be saved, but their deliverance should arise from another place.

At the close of this half century of the life of our Association, with the new power and new responsibility of its more perfect organization, like the old Hebrew I would ask: Shall we undertake this work or leave it to others who will come after us? "Who knoweth whether we are come to the kingdom for such a time as this?"

THE SECRET NOSTRUM EVIL.*

1905.

By FRANK BILLINGS, M. D., Chicago.

I shall make no apology for bringing this subject before this section. Its importance to the profession of medicine and to the public justifies an exposition of the evil now. In no other country has this menace to the welfare to the welfare of the people and to the best interests of scientific medicine developed as it has with us.

Probably the reason is that other countries, with one or two exceptions, protect the people against frauds in foods, medicines, etc.

Some day it is to be hoped that the Congress of the United States will enact a national pure food law which shall include the regulation of the copywriting and exploitation of proprietary and other medicines.

Just here it will be well to say that the term "proprietary medicine" does not necessarily stamp a preparation or a remedy as a nostrum. Webster says that a nostrum is "a medicine, the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor; a quack medicine." Some proprietary medicines are patented, or better, the process of manufacturing an article is patented. This patent protects the discoverer, or owner, in the manufacture of the medicine or drug for a period of 17 years. These preparations are ethical, in that they are not secret, for any one for a small fee

* Read in the section on the Practice of Medicine of the American Medical Association, at the Fifty-sixth Annual Session, July, 1905.

may obtain from the patent office of the government a copy of the description of the process of manufacture and the actual chemical composition of any such patented drug or remedy. The chief harm which has come to us in America from the protection by patent of the process of making a chemical or drug has been the resulting high price of the product. Many of the synthetic chemical drugs, like antipyrin, phenacetin, etc., cost ten times their worth as compared with the price of the same drugs in Germany and other countries. As stated, however, such really patented preparations are not secret; the composition is known. Some of them are of value therapeutically. Many of them are valueless. Some of them are harmful. Most of them we could easily get on without and fare better with the older, more simple remedies. Too many "made in Germany" specifics are shoved under our noses.

Now, as to the other proprietary medicines. All the so-called "patent medicines" put on the market for the public, and many of the preparations exploited to physicians and distributed by them to the public, are not patented, but are protected by a copyright or trade mark. Technically there is no difference between the secret proprietary medicines manufactured for physicians' use and the patent medicines exploited to the public. Both are protected by a copyright or trade mark name. Both are protected for an indefinite time. They are mixtures, as a rule, of several ingredients.

The relation of the physician to these preparations, however, is very different. Those "patent medicines" which are advertised to the public are not considered ethical and physicians abhor them and rightly condemn their use because they are often dangerous and always irrational as remedies. On the other hand, the manufacturers of those copyrighted proprietary medicines which are exploited to physicians by extravagant claims of specific therapeutic action, use the doctor as the middle man to distribute the cure-alls to the public.

Medicines so prepared that the busy physician could easily dispense them found a certain class of doctors eager to use them. The indications for use appeared on the label or in the accompanying literature. Tonics, blood and tissue builders, emenagogues, pain relievers, febrifuges, laxatives, calculi dissolvers, soporifics, bile promoters, heart tonics, cures for Bright's disease, etc., have appeared in countless number and some remedies offered are confidently presented as cures for not one, but a half dozen diseases or symptoms complex. Indeed, the claims of many of the promoters of this class of remedies do not differ in extravagance from the cure-all patent medicines

offered directly to the public.

It has been easy to obtain testimonials to the alleged value of many of these remedies. Many even of the "faculty" have extolled them. Why, therefore, should not the less experienced physician use these "elegant," palatable, all-ready to use, with label-specifying-dose, disease-indicating remedies? Prominent physicians and the "faculty" had testimonials in the circulars sent out with the samples indicating the virtues; why, therefore, use the simple proved remedies of the pharmacopeia, and especially as the latter would often necessitate the trouble of writing a real prescription.

To the rational physician most of the mixtures, even with the formulæ, are objectionable. Disease is never quite the same in different individuals, nor does the picture remain the same from day to day. The treatment must be modified to meet the varying problem of the morbid process. Rational therapy calls for simple prescriptions; but if there are to be an objection to mixtures with fixed and known formulæ, what must one say of mixtures of secret or semi-secret composition?

As Dr. Horatio C. Wood, Jr., says:

1. "Proprietary Therapeutics," *The Journal A. M. A.*, June 10, 1905, p. 1836.

A much more elusive and therefore dangerous evil lurks in the class of mixtures which attempt to cloak their secrecy with a deceptive show of frankness. I think you will grant that the physician is rarely justified in the use of remedies concerning which he has no knowledge, and I maintain that the publication by a drug firm of whose integrity the physician is absolutely ignorant, of a professed list of ingredients of some mixture is not sufficient knowledge to pardon or to warrant the uses of that remedy. In the first place, if the published formula be correct, it is not enough to know simply the composition of a mixture, the exact quantities must also be known; there is a vast difference between the effects of 1 grain and of 100 grains of opium. Moreover, there is no means of knowing that the formula is a true one, for many of these corporations do not hesitate to pervert the truth.

Many of the promoters of these preparations claim, as chemists or as pharmacists, to be the discoverers of the wonderful remedies and the alleged unusual knowledge of chemistry or of skill in the pharmacy has enabled the discoverer to develop in a mixture heretofore unknown, therapeutic qualities. Truth to tell, however, it is known that the proprietors are not always the manufacturers of the preparations they exploit and distribute. Many of the proprietary preparations are made by the large manufacturing pharmacists for the owners. Pharmaceutic skill is doubtless used in these instances, but it is the kind of skill which is for sale and is not personal.

I am informed that it is not unusual for one manufacturer of proprietary mixtures to have several so-called "companies," through which he can more easily exploit and distribute his products.

There is said to be a direct relation between the Dad Chemical Co., the Od Chemical Co., the Sultan Drug Co., the Rio Chemical Co., and the Peacock Chemical Co., or at least that they are linked together through one individual, and that Battle & Co. and the Lambert Pharmacal Co. are related to the above list. It is said, too, that the Vass Chemical Co., the Lotos Chemical Co., and the Valley Chemical Co., are one combination. Doubtless other combinations exist.

Curiosity recently prompted me to look through a number of medical journals and I can not resist the temptation to quote some of the preparations advertised in them: Aletris Cordial, Celerina, Neurilla, Respiton, San Metto, Cacitina Pellets, Seng, Chionia, Thialion, Zarcol, Echthol, Hagee's Cordial of Cod Liver Oil Compound, Mandragorine Tablets, Rhumeumagon, Ponca Compound, Ammophenin, Chloro-Bromon, Anasarcin, Bronchiline, Zematol, Zymotincine, Sulphogen, Labordine, Satyria, Manola, Cacodol, Eusoma, Leprosen, Sulpho-Paphtol, Pasavena, Neurosine, Germiletum, Bonn's Passiflora Tablets, Dioivburnia, Tongaline, Lythiated Hydrangea, Melachol, Gonoseptone, Calicolo, Solsul, Saliiodin, and so on *ad infinitum*. These are only a few samples of what the physicians of the United States are asked to prescribe. But there are hundreds of secret preparations that are not advertised in medical journals, whose literature and samples come to us through the mails, etc. In the majority of cases, we do not know their contents, and in many instances an analysis shows that they are simply mixtures. Often a prescription written by a physician for a particular case is purloined, put up under a trade-name and exploited as a cure-all.

As an illustration see the official announcement of the Council on Pharmacy and Chemistry regarding certain nostrums that have been exploited as synthetic chemical preparations guaranteed to cure everything. I have no doubt that the majority of physicians who have been prescribing phenalgin, antikamian, sal-codeia (Bell), and ammonal were shocked when they found out that, according to the analysis, they had been giving a simple mixture of acetanilid, with bicarbonate of salicylate of sodium or carbonate of ammonium, with a little caffen in some instances. What physician will be foolish enough to use these preparations, when he can get the same of his druggist for at most one-tenth the cost, but especially what physician with a particle of medical knowledge would think of giving acetanilid

if he knew it, in the majority of the conditions in which, according to the advertisers, these nostrums are indicated?

What physician would prescribe Gray's glycerin tonic, if he knew that its chief ingredients are gentian, dandelion, glycerin and sherry wine? Could he not write a prescription

2. "Each half ounce is stated to contain dilute phosphoric acid, 12 minims; gentian root, 10 grains; extract of taraxacum, 15 grains; glycerin, 80 minims; sherry wine 80 minims; carminatives, q. s."—"Thesaurus of Proprietary Remedies," p. 148.

as good and feel that he was his own judge of what constitutes a tonic?

Let me quote from The Journal A. M. A. This, I am told, refers to an article advertised

3. June 17, 1905, p. 148.

as a cod liver oil preparation—one of the tasteless kind, that has been investigated by a subcommittee of the Council:

We have recently had occasion to open a package of a well-known "Tasteless Cod Liver Oil" preparation. The circular which was wrapped about the bottle was replete with interesting information, especially for the patient, who obtains the remedy in the original package, as prescribed by his physician. He finds in it a list of the diseases in which the preparation does wonders—they range from the dread consumption to systitis and hemorrhage of the kidney. Most interesting to us, however, is the statement that this compound "contains all the necessary elements of nutrition." It is too bad to disturb this beautiful vision by the report of the chemist. This shows that the product is quite free from oil or proteids; the only nutrient ingredients are alcohol, sugar, and perhaps glycerin. But the claims of the manufacturers are probably correct, for it contains carbon, hydrogen, oxygen, and probably a trace of nitrogen—so does gunpowder.

Perhaps it will now be the turn of strychnine to be advertised as the ideal food. It seems superfluous to point out the moral of this tale.

It is not necessary to enter into a discussion as to whether we should ever prescribe secret proprietary medicines, for in the minds of intelligent men, even with only a smattering of medical knowledge, there can be but one answer. A physician who has a true appreciation of his responsibilities, who has even ordinary knowledge of the action of drugs, and the danger from their unintelligent use, would not think of prescribing for the sick, who have placed themselves under his care, a preparation about which he knows nothing except what the manufacturer, about whom he knows less, had told him. While there is no excuse for prescribing these medicines, too many unthinking physicians are influenced to do so by the claptrap designated "literature" which the exploiters publish about their preparations.

There is not a secret proprietary preparation that has any more value, from a pharmaceutical or therapeutic standpoint, than has the ordinary prescription of the average general practitioner. Stop advertising them, and they would be forgotten, just as "patent medicines" pass away if they are not advertised. A hark-back 10 or 15 years will call to mind many concoctions which physicians were asked to prescribe, and which, according to the advertisements, performed wonders, but now are heard of no more. Their advertising literature stopped coming and the nostrum-prescribing doctor ceased to use them.

What is the cause of the nostrum evil? There are several.

1. Pharmacology and therapeutics are neglected relatively by many of our medical schools. Anatomy, physiology, pathology, diagnosis, etc., are emphasized and too often the usefulness and limitations of drugs are neglected. Too frequently drug nihilism is taught. If the student were fully taught the physiologic action of drugs, the art of prescribing, preferably single remedies or in simple combination, using if he desires the pharmacopeial preparations prepared by reliable manufacturing pharmacists, and at the same time if he were taught when not to rely on drugs, but frankly to prescribe for his patient a course of hygienic measures which alone would accomplish all that he required, he would not be the willing dupe of the nostrum vendor, as he now is.

2. The reputable manufacturing pharmacists deserve great credit for the improvement they have made in pharmaceutical products. They have afforded us official preparations in the form of pills, tablets, syrups, tinctures, extracts, etc., which are elegant in appearance, often palatable and usually potent.

For this advance in pharmacy a distinct credit to our country, we owe them our thanks.

Unfortunately, many of them have not stopped at this point, but have manufactured their own special mixtures which are just as objectionable as the products of the special manufacturers. They, too, have been active with their agents in visiting physicians and in distributing "literature." This encourages drug-giving in specific mixtures for special symptoms, and is wrong. With one hand they do good work, with the other much evil is done.

3. The nostrum makers at first copied the methods of the reliable manufacturing chemists, in exploiting their products, but they have gone a step further and have reached a point where one may say they have subsidized the medical press. I know I am on dangerous ground when I make this statement, but right here is the chief cause—and the remedy. How many of our so-called medical journals are subsidized by medicine manufacturers I do not

know, but all physicians know as well as I that there are many, and I do not refer to the so-called house organs. I unhesitatingly affirm that one-half of the medical journals of the country would be out of existence if it were not for the nostrum advertisements. Under the circumstances, therefore, can we expect these journals to say anything? Need we be surprised that scarcely a journal published the official report regarding the acetanilid mixtures, when the preparations hit were the best paying advertisements in the country?

What is the remedy? Publicity. The enlightenment of the profession. The truth regarding not only what the preparations contain, but who makes them. Certainly no honest manufacturer will object to this last proposition, and no honest physician will put up with less than the former.

The Council on Pharmacy and Chemistry has been created to investigate the non-official preparations, to find out the truth about them, and to publish its findings. It is not necessary to repeat here the results of the work already done by this body. All physicians have read, or may read all about it. In my opinion there has been no movement undertaken by the American Medical Association that will be so far reaching as this one to rid us of the blight of the nostrum evil. For the first time, we see the possibility of the elimination of a part, at least, of this curse to American medicine. It is the first practical solution offered of a most difficult problem.

But—and I want to emphasize what I am about to say—the movement will have the most determined opposition that money can bring. Millions are being made annually by the nostrum manufacturers, and they will not sit idly by and see this wealth-producing business done away with if they can prevent it. It won't be an open fight, for their business will not stand publicity. They will have with them those so-called medical journals which are published solely in their interests.

This movement will have the sympathy of every thinking physician of the country, but sympathy does not win battles. In this fight those who are representing us should have all the support we can give. In the Society meetings especially we should aid in the propaganda by helping to enlighten and to interest those of our profession who have given the matter no thought. We should support those journals that represent us, and not tolerate in our offices those that we know to be subsidized and to represent their advertisers rather than their readers.

MINUTES OF ANNUAL MEETING OF THE KENTUCKY STATE MEDICAL ASSOCIATION, 1905.

The House of Delegates of the Kentucky State Medical Association held its first session in the parlor of the Galt House, Louisville, October 17, 1905, and was called to order by the President, Dr. F. H. Clarke, of Lexington, at 8:00 P. M. Forty-seven delegates responded to the roll call:—

W. E. Meredith, C. W. Kavanaugh, N. L. Rogers, S. T. Botts, Frank Fithian, J. E. Kincheloe, S. H. Ridgeway, A. E. Gardner, J. N. Todd, W. W. Anderson, E. B. Willingham, F. M. Gaines, J. T. Wesley, I. A. Shirley, D. M. Griffith, E. M. Wiley, J. A. Minnish, Hugh E. Prather, J. B. Kinnaird, E. F. Taylor, D. C. Bowen, Arch Dixon, John P. Nuttall, R. L. Ringo, B. P. Earle, A. M. Vance, William Bailey, J. Garland Sherrill, G. E. Cecil, David W. Gaddie, Philip H. Stewart, C. H. Vaught, C. B. Kobert, S. R. York, O. P. Hamilton, S. E. Spratt, H. E. McKay, J. A. Freeman, J. A. Mahaffey, M. Pennington, W. E. Morris, W. A. Guthrie, J. L. Atkinson, J. L. Barker, E. N. Hall, L. B. Croley.

On motion of Dr. Ap Morgan Vance, Louisville, the reading of the minutes of the preceding meeting was dispensed with, the minutes having been published in full in the Journal of the Society. On motion the minutes, as printed, were approved.

The report of the Secretary being called for, Dr. Bullitt reported as follows:

REPORT OF SECRETARY.

I desire to report, first, in regard to the membership of the Association. In 1903, immediately after the re-organization, there were 1,038 members, men who had met the obligations to the county society and, therefore, to the State Association. That number did not include any men who had not paid their dues. In 1904 there were 1,386 members, and in 1905, 1,235 members. A few secretaries failed to report, however, until the last moment, which will bring the membership up to probably 1,300, showing a slight decrease in membership from last year.

The exact causes for this decrease are somewhat hard to ascertain. There can be no question that the cause of organization all over the United States has progressed rapidly and surprisingly during the past year. With the exception of three or four States in the Union, all have adopted the plan of organization proposed by the American Medical Association, and the membership in all States has increased in a most astonishing way—Texas, from a few hundred to more than 2,500; Ohio

a few years ago had 800 members; to-day she has a membership of 3,000, and the Chairman of the Council of the Ohio State Medical Association believes that in a few more years practically all the members of the profession in his State will become members of the State Association.

We have had a great number of backsliders in Kentucky. The number of county societies have not shown any decrease, rather an increase. While we have more counties in affiliation with the State Association than before, yet we have a smaller membership. I believe that this is owing to the fact that too much is expected of a few men in the State. There are not enough members of county societies who are at heart interested in this matter; not enough men who are convinced that this thing is good and right, and who are willing to take part in advancing this movement.

I believe also that the membership in the State Association and county society will always be dependent on two factors; that is, the work of the general officers of this Association and more especially of the councillors of this Association. If there is no active work done by the councillors in their districts, we can expect to see a decrease in the membership of their districts rather than an increase. Some of the councillors have been very faithful, while some have not visited the county societies in their district as often as they should have. Of course, in some districts the counties are so inaccessible that the councillors cannot do much to bring their members into the Association. There the doctors are few and acres are many.

The secretaries of some of the county societies have been delinquent in the duty of making reports to the State Secretary. Last year when this Association met, a rule was made extending the time for making these reports from April 1 to July 1, because many county secretaries reported that April was too early to make out these reports. They could not get their membership together as early as that, because the winters are long and the roads bad, and these men could not come in to pay their dues as early as April. Our experience this year, however, has shown that the roads are just as bad in July as in April, because there are just as many delinquent secretaries this year as there were last year.

The result is that much work has been thrown on the State Secretary and Treasurer at the last moment which we could not take care of with the ordinary office force; hence we have had to employ extra help to do this work, which would not have been necessary if the reports had been sent in on time. This extra expense was due entirely to the fact that these secretaries did not attend to their duties.

It is the duty of the President and members of the county societies to see that their officers attend to their duties in this as well as in other respects. The secretaries are your servants and it is your duty to see that these servants attend to their duties in the time specified, thus saving much confusion and annoyance and considerable expense.

By district, I beg to make the following report:—

The First District, Dr. W. W. Richmond, Clinton, Councillor, reported in 1903, 90 members; 1904, 107 members; 1905, 131 members. Apparently Dr. Richmond has been working. The result of his labors is shown in these figures.

Second District, Dr. J. H. Letcher, Henderson, Councillor, reported in 1903 a membership of 103; 182 in 1904, and 161 in 1905. Dr. Letcher was away part of the time, hence could not do the work he otherwise would have done in his district.

Third District, Dr. A. T. McCormack, Bowling Green, Councillor, reported a membership in 1903 of 101; 1904, 143, and in 1905, 176 members.

Fourth District, Dr. C. Z. Aud, Cecilia, Councillor, in 1903, 61 members; 1904, 80 members, and in 1905, 77 members.

Fifth District, Dr. John G. Cecil, Louisville, Councillor, reported in 1903, 215 members; 1904, 215 members, and in 1905, 257 members.

Sixth District, Dr. R. C. McChord, Lebanon, Councillor, reported in 1903, 72 members; 1904, 76 members, and in 1905, 77 members.

Seventh District, Dr. J. G. Carpenter, Stanford, Councillor, reported in 1903, 66 members; 1904, 106 members, and in 1905, 85 members. Dr. Carpenter reported that there is a great deal of dissatisfaction in his district that he cannot account for.

Eighth District, Dr. J. E. Wells, Cynthiana, Councillor, reported in 1903, 168 members; in 1904, 208 members, and in 1905, 110 members. Part of this falling off is due to the fact that one of the largest and most populous counties in the State failed to report up to to-night, the Campbell-Kenton combination, embracing Covington and Newport. These two cities have not gotten into the organization in the proper manner. A condition exists there that calls for some action on the part of the Council or the House of Delegates. Many of the best men in these two cities have not joined this Association largely because of the fact that they held membership in the Academy of Medicine of the city of Cincinnati, which gave them the desired standing in the American Medical Association. These gentlemen should not have been granted membership in the American Medical Association

through the Cincinnati Academy of Medicine. They should be members of the county society of the county in which they live. To have things as they are, results in lack of harmony. Last year the Campbell-Kenton County Society handed in its report at the time of convening of the House of Delegates; when it is impossible to enter these names on the register. This year the same thing has been done. All we can do is to extend to the members of that society the courtesies of this body and see that in the future the Secretary of that society attends to his duties properly.

Ninth District, Dr. J. W. Kincaid, Catlettsburg, Councillor, like the Tenth and Eleventh Districts, has a superlatively difficult task to perform. The Councillor has a large area to cover, and many of the districts lie remote from the railroads; yet he has succeeded in bringing many men into the county societies. It was suggested at the last meeting that these gentlemen be given the privilege of hyphenating several counties, but thus far it has been impossible to effect that kind of an organization, and hence many counties have still remained out. In 1903 this district had 15 members; 36 in 1904, and 21 in 1905.

Tenth District, Dr. I. A. Shirley, Winchester, Councillor, had 103 members in 1903; 124 in 1904, and 119 in 1905.

Eleventh District, Dr. J. S. Lock, Barboursville, Councillor, had 15 members in 1903; 22 in 1904, and 21 in 1905.

In these last three districts the councillors cannot be expected to do much more than they have until the coal regions are opened up, the population increases, and the traveling facilities are improved. They deserve great credit for what they have done.

Your Secretary besides attending to the work of tabulating these county returns and stimulating the members of the county societies by correspondence, has visited some county societies, a pleasant and profitable duty, because it has enabled him to get in contact with the membership in these districts, and in that way acquire an exact knowledge of the conditions existing in these counties. This has been of value and will facilitate the work that has to be transacted with the officers of these county societies by your Secretary during the remaining years of his term of service.

Further time has been spent in the conduct of the Journal of the Association. I am very sorry that I must acknowledge and report to you that the Journal has gone to the members of the State Association somewhat irregularly. That has been due to several factors. First, because of the difficulty of deciphering the hand-writing of some of the county society Secretaries. We have thus been unable at times to get the members' names, initials, and even

post office addresses correct until a report was received that the Journal was not coming regularly. Nevertheless we have received notices at the end of the year that a number of irregularities have continued to exist. In a number of instances these names were on the mailing list in the hands of the publisher who attends to the mailing of the Journal. He assures us that these Journals have been mailed, but doubtless failed to reach their destination. Evidently the post office is responsible for some of these irregularities. I hope that every member who does not receive the Journal regularly will report the matter to his county Secretary or to the State Secretary, so that the matter can be adjusted at once.

I believe our office has been blamed sometimes without being at fault. I feel that many gentlemen have received the Journal and put it into the waste-basket, apparently not realizing and appreciating the importance of the matter contained in the Journal. One gentleman from Lexington complained that he had not received a programme of this meeting. His son is on the programme and he wanted to see when his son's paper was to be read. He complained that the programme was not sent to him as was done in the olden time. He failed to see that the Journal contained the programme in full. When I asked him whether he had received the Journal, he said that he believed he had, but that it had gone with some other publications into the waste-basket.

Now, gentlemen, while we claim no superlative merit of the Journal, yet it is worthy of consideration, and if it does not contain superlative merit, it is partly your fault. This publication was started three years ago. It started out with an editor and with assistants absolutely untrained in this work. They have done the best they could, and I think you will agree with me that the Journal has improved and is improving. It is better looking and better edited; but the excellence of this Journal necessarily must be dependent always on the membership of this Association. The Journal is merely a mirror which reflects, to a large extent, the proficiency and attainments of the doctors of Kentucky, and if we publish in that Journal, papers read before county societies which are not of great merit, it means that this is the status of education of the medical profession of Kentucky. So it is incumbent on all of you to make our county societies better; and if they are better, the papers read before them will be better, and the papers published in the Journal will be better, but not until then.

The policy of this Journal has been, as was directed by the Council and the general officers, to limit to a large extent the publication of papers to those papers read before

county societies and the State Association. For that reason we are debarred from coming into competition for many papers of great merit. Yet the purpose of this Journal is to develop the members of the Kentucky State Medical Association, and the way to do that is to encourage good papers to be read before the county societies. I do not say this in the way of an apology for any paper which has appeared in the Journal, because all have been worthy papers, but many could have been better papers if the gentlemen writing them had devoted more time to the writing. I believe that the next time the same man writes a paper, he will write a better paper. As pointed out editorially, the Journal must publish some poor papers with the ultimate end in view of developing these men.

The receipts from advertising were less than they might have been for several reasons. The State Journal has not received the support from the city of Louisville which might have been expected. The members of the State Association can do much toward removing this apathy on the part of local advertisers if we will show them that we are interested in the Journal. It will induce them to put advertising in the Journal.

The policy of the Journal has been to exclude many advertisements which the Publication Committee has believed not to be the right kind of advertising to appear in the Journal. The question as to what are proper advertisements is often times a difficult one. Some are not proper on the face of them, while others are unquestionably proper. Between these two extremes are many about which it is difficult to come to a definite determination. The solution of this problem has been reached in part by the appointment by the American Medical Association of the Council on Chemistry and Pharmacy, whose purpose it is to investigate the constituent elements and claims of proprietary remedies which are chiefly advertised in medical journals. This Council says whether the advertisements are proper for the Journal of the American Medical Association to accept, and that will be the guide for all State journals in the future. It will cut down the revenues in some respects, but in any event, it will enable us to do what is right. When a journal publishes an advertisement, it, to a certain extent, endorses the product advertised, in so far as it is possible for it to do so.

For these reasons, our income has been comparatively small. It has been less than it should have been. Some advertisements have been dropped, and others will not appear after the present contracts expire, because they are not the right ones to appear in the Journal.

From June 1904 to June 1905, the cost of printing the Journal was \$1,320.85. The increase in cost of printing was due to the increase in size of the Journal from 32 pages to 48, and to better quality of paper. The Journal was also given a cover which gives it a better appearance, and makes it appeal more to many of its readers. The cost of mailing was \$98.55, making the gross cost, \$1,419.40. The income from advertisements was \$554.08, making the net cost for the second year \$865.32.

From June to October, 1905, the printing cost \$541.39; mailing, \$43.72; gross cost, \$585.11. The return from advertising during this period, four months, was \$630.86, leaving us \$45.75 in excess of all expense of publication.

Figuring up all the totals for the time of the Journal's existence, we get the following figures: Printing, \$2,875.04; mailing, \$485.62; gross cost, \$3,360.66. Return from advertising, \$1,913.15, leaving the net cost of the Journal for twenty-eight months, \$1,447.51, a monthly average cost of \$51.69 1-2.

As against these figures we have receipts from the membership of the State Association. We have received in all during that time \$2 each from 3,657 members, a total of \$7,314.00. Of course, a large part of this money has been expended in the salaries which have been paid and to defray the expenses of yearly meetings, of the Secretary's, and Treasurer's offices, and in the payment of expenses incurred by the Councillors and other officers of the Association while attending to the work of the Association.

To insure the success of any undertaking it is necessary to have money in the pocket. There has been a fear expressed by members of this Association that we would accumulate a sum of money which would be a detriment to the Association, or which would suborn the officers of the Association, and make them feel inclined to move across the border into Canada; but we are not likely to have such an accumulation, and it will be a healthy thing for us to have a few dollars in our pocket. When the amount is large enough, we can reduce the membership fee, but not until then.

Respectfully submitted,

JAMES B. BULLITT,
Secretary.

TREASURER'S ANNUAL REPORT.

The Treasurer's report being called for, Dr. McClure reported as follows:

Lexington, Ky.

To the Kentucky State Medical Association:

As Treasurer of your Association I would

respectfully report the following as the state of finances of the Association at the end of the day Tuesday, Oct. 17th, 1905:

Dr.

Oct. 17th.

To total receipts (Shown herewith)	\$6,720.85
Amount received during last meeting of this Association not accounted for in this report	256.10
Treasurer's checks outstanding..	273.74
Total receipts	7,250.69

Cr.

By total disbursements	\$4,236.18
By amount in Third National Bank, Lexington	3,014.52

Total \$7,250.69

Respectfully submitted,

W. B. McCLURE,
Treasurer.

The report was referred to the Council for audit.

Dr. J. Garland Sherrill, Chairman of the Committee on Scientific Work, presented the programme, as published, as the report of his committee.

On request the Committee on Public Policy and Legislation was given further time to report.

The report of the Publication Committee being called for, Dr. Bullitt called the attention of the Society to the fact that the report of this committee, of which Dr. John G. Cecil is Chairman, was embraced in the report of the Secretary, who conducted the work of publication under the direction of the committee.

The report of the Councillors being called for, the following Councillors, third, sixth, eighth, ninth, and tenth, reported. Further time to report was granted to the Councillors of districts one, two, and four. The Councillors of districts five, seven and eleven were absent.

There being no further business to come before the delegates, the house adjourned, subject to call by the President.

The Council met at 9:30 a. m. and appointed three of its members, Messrs. Wells, Kincaid and Shirlev, an auditing committee to audit accounts of the Secretary and Treasurer.

GENERAL SESSION—FIRST DAY.

The Association assembled in the Galt House, and was called to order by the President, Dr. F. H. Clarke, Lexington, at 10:00 a. m.

Dr. L. S. McMurtry, Chairman of the Executive Committee of the Jefferson County Medical Society, made the following remarks

by way of welcome and as the report of the Committee of Arrangements:

"Mr. President, Ladies and Gentlemen of the Kentucky State Medical Association:

"The pleasant duty of welcoming you on this occasion has devolved upon me. In behalf of the medical profession of the city of Louisville and the county of Jefferson, I bid you thrice welcome. Such words as these are mere form of speech, for every Kentuckian is at home in this, the metropolis of our beloved old Kentucky. We want you to feel at home.

"Fifty years have elapsed since a few Kentucky physicians gathered in the Senate chamber of the old capital at Frankfort to organize a State Medical Society. The founders were eminent men in our professions whose names will always command respect wherever medical science is cultivated. Among these names were those of Saml. D. Gross, Henry Miller, Sutton, T. G. Richardson, and others quite as familiar to your ears. South-western medicine had established her Mecca in this city, and the most active founders of this society were the high priests officiating at her altars. Great changes have been wrought during the half century that has elapsed since that time. Our State was then a part of the remote and sparsely settled South-west; now with a population of two and a half million and developing resources, it is in the center of population and commercial activity. Our beautiful city of Louisville was then scarcely more than a small river town; now with a population of a quarter of a million, it ranks among the leading cities of the United States.

"What changes have taken place in our profession in these years! In medical education, in medical practice, in surgery, in the development of the specialties, in hospital construction and equipment, in State medicine, what wonderful progress and achievement! And in no feature of the advanced era is progress more marked than in the enlarged scope and power of medical societies. In the present age organization is a distinguishing means of utilizing and increasing energy in all departments of human effort. Without it, force is misdirected and expended without results. In no field of labor is this more applicable than in that of our profession. The medical societies are the great post-graduate schools of medicine. The results of original research and clinical observation are first submitted to our medical societies where they receive the criticism of those competent to consider such matters, and afterward they are published in the medical journals. Here new ideas and advanced methods are classified, tested and formulated; observations interchanged and knowledge diffused.

"The progressive science of medicine with the perpetual modification of existing knowledge which must necessarily characterize a science not absolutely exact, must have such means of discussion and diffusion as only organization can afford. The medical societies can never complete their work until all Nature's secrets have been unfolded. They are the medical schools from which no pupil ever graduates.

"The Society which assembles here to-day, rich in the traditions of a half century of earnest effort by the best men the profession of our State has known, has a distinctive work quite separate from that of all other medical organizations. It is the medical society of the State. To organize the profession in every county; to make the county societies centers of professional advancement and co-operation; to secure the enactment and enforcement of medical laws; to promote the public health; to advance the standard of general and individual culture and efficiency, these are waiting tasks that invite effort and promise incalculable benefit to both the medical profession and the public. This is the work before you.

"But, Mr. President, I must not transcend the limits of propriety by prolonging these desultory remarks. The medical profession of Louisville and Jefferson County have a perpetual pleasure in welcoming here our brethren from every part of the State. We have provided entertainment for you both for this evening and to-morrow evening. Tickets for these entertainments will be handed you at the registration desk.

"My colleagues of the committee appointed by the Jefferson County Medical Society to arrange for your comfort and enjoyment while here, and in fact every member of our county society, will be at your command throughout the session.

"Again I tender you a most sincere and cordial welcome to our city, with the hope that your work may be well done, and that each and every one of you will carry home happy memories of the annual meeting of 1905."

Dr. McMurtry apprised the Association of the death of an esteemed and valued member and ex-President, Dr. John A. Ouchterlony, and moved that a committee with Dr. J. G. Cecil as chairman be appointed to draft suitable resolutions and that said resolutions be spread on the minutes of the Association. Carried. The chair appointed on this committee Drs. John G. Cecil, R. C. McChord and Chas. G. Lucas. At this juncture Dr. Ap. Morgan Vance, Louisville, took the chair, while the President delivered his address.

The Address in Medicine was delivered by

Dr. J. T. McClymonds, of Lexington. Dr. McClymonds chose for his subject, "The Relation of Laboratory Methods to Medicine."

Dr. J. M. Matthews, of Louisville, introduced the following resolution:

"WHEREAS, The Honorable John W. Yerkes, Commissioner of Internal Revenue for the United States Government, has recently promulgated and is now enforcing an order that all patent medicines containing over a certain per cent. of alcohol shall be held unsalable unless the dealer take out a retail liquor license. Therefore be it

Resolved, That the Kentucky State Medical Association endorse and commend this action of the Commissioner of Internal Revenue.

On motion this resolution was referred to the House of Delegates.

The Society then adjourned until 2:00 p. m.

AFTERNOON SESSION.

The Association reconvened at 2:15 p. m., and was called to order by the President.

Dr. D. W. Gaddie, of Hodgenville, moved that Dr. C. J. Walton, of Munfordsville, be invited to take a seat on the rostrum with the President as a mark of distinction for his time-honored services in the Society since the time of its organization. Carried.

On motion, Dr. Gaddie and Dr. Aud were requested to conduct Dr. Walton to his seat.

On motion of Dr. A. T. McCormack, Dr. J. E. Cannaday, of Paintcreek, W. Va., was likewise honored.

At 8:00 p. m. the members of the State Association were guests of the Jefferson County Society at a theatre party at Hopkins Theatre.

OCTOBER 19, MORNING SESSION.

The following resolutions were offered in general session, and were referred to the House of Delegates for action:

By Dr. J. M. Matthews:

"WHEREAS, The Hon. Jno. W. Yerkes, Commissioner of Internal Revenue for the United States Government, has recently promulgated and is now enforcing an order that all patent medicines containing over a certain per cent. of alcohol shall be held unsalable unless the dealer takes out a retail license. Therefore, be it

Resolved, That this, the Kentucky State Medical Association does endorse and commend this action of the Commissioner of Internal Revenue."

By Dr. Curran Pope:

Be it resolved, That the Kentucky State Medical Association heartily commends the Ladies' Home Journal, Collier's Magazine, and Everybody's Magazine for the intelligent and active fight they are making on the use of patent and proprietary nostrums containing alcohol and other poisons, and that we urge the profession

of Kentucky to give active support to these publications, and especially to show these articles to their newspaper men and legislators that the people of the State may be protected from these death-dealing drugs."

By Dr. D. C. Bowen:

"Be it resolved by the Kentucky State Medical Association that we heartily endorse the formation of the Council on Pharmacy by the American Medical Association, and that we pledge ourselves to assist by every possible means the Council in stopping the use, by our profession, of nostrums or other proprietary articles whose exact formula is not published in every announcement or advertisement of such articles."

Dr. Dudley S. Reynolds, Louisville, called the attention of the Society to the fact that the Kentucky State Medical Association was organized in 1851, the first meeting being held at Frankfort, and that the only one now living who attended that meeting is probably Dr. Geo. W. Ronald, of Louisville.

The resolutions reported above by Drs. Mathews, Pope, and Bowen, respectively, were adopted.

Dr. C. H. Vaught offered the following resolution, which prevailed:

Resolved, That the Medical Association of the State of Kentucky now assembled, sets apart the sum of \$100.00 for the purchase of a watch, or other article, appropriately engraved, and presents same to Dr. Steele Bailly as a slight token of our appreciation of his 19 years' service as Secretary of this Society, and of our affection for the man, and that a committee of three be appointed to make the purchase and present same to him."

The President appointed on this committee, Drs. C. H. Vaught, A. T. McCormack, and J. E. Wells.

On call of the President, the House of Delegates met at 4:00 p. m.

The Committee on Public Policy and Legislation, Dr. George P. Sprague, Chairman, made the following report, which was received and adopted:

To the House of Delegates of the Kentucky State Medical Association:

Your Committee on Public Policy and Legislation begs leave to report as follows:

The General Assembly has not been in session since your committee was appointed, and there has consequently been no new law, nor an amendment to a law, to report. The committee has, therefore, confined its efforts to discovering the medical legislation needed by our State. The committee feels that the best public policy from a medical standpoint, entails upon this Association many duties to the profession, the State, and to the Nation, duties that are not separate, but one and the same for

both the public and the profession. Your committee believes that not only should the constitutions of our county medical societies provide for co-operation of legislative committees, as they now do, but that each successive legislative committee appointed by this Association should at once get into active correspondence with the legislative committee of each county medical society in the State, with the State and County Boards of Health, and with the Committee on Legislation of the American Medical Association. As representing the medical profession of a State we should do our share toward attaining to the ideal of a single standard of medical education in the country, with a national license to practise, or at least complete inter-state reciprocity of licensure. We should work for a Secretary of Health,—that is, for a medical department in the President's Cabinet at Washington. We should try to secure a national quarantine law, and a pure food law that would insure punishment for those making or selling impure foods. We should put proprietary and patent medicines under such restrictions and surveillance that they would cease to destroy the health of the public, and to rob the medical profession. We should secure a non-partisan State Commission with complete authority over, and responsibility for, the charitable institutions of this State. We should establish a State Sanatorium for tuberculosis, a State Hospital for drug habits, and a State Colony for epileptics. The commitment laws for our insane should be modernized, and the irresponsibility of those enslaved by alcoholic and other drugs, should be recognized by the enactment of efficient laws for their commitment and detention. We should no longer permit our State to lag behind nearly all other States in having no adequate system of vital statistics. We should make it impossible for our people to be buried without authority from anyone except a certificate signed by an undertaker, a friend of the bereaved family, or even by a colored midwife, as is now done. We should aid the establishment of medical examinations of all school children in our Commonwealth. A law should be enacted aimed at preventing the pollution of the streams of Kentucky. The punishment of criminal abortionists should be made less difficult. The next General Assembly should be made to see the justice of our claim that Ephraim McDowell should be given a place in the Hall of Statuary of the Capitol at Washington. The hands of our State and local Boards of Health should be upheld by us, not carelessly, but vigorously, at all times.

Your committee believes that each of the things enumerated should be carried out as suggested, but it is manifestly impossible for the Committee on Public Policy and Legisla-

tion to accomplish many of these reforms during the session of one General Assembly: it would also be impossible to attempt to do so. Your committee would request, however, that every member of the Association take up the matters that seem to him to be most important, and educate his community to a belief in the proposed reforms. It can hardly be too often reiterated that any good thing desired by us can be secured if each member of the profession in the State will but advocate it in his locality, and then, at the proper time, the entire Association works together for its accomplishment.

In conclusion, your committee would suggest that from among the many matters needing attention, the following ones should be selected for presentation to the next General Assembly:

A more efficient law for the prevention of criminal abortion; a bill to enable us to secure a place for Ephraim McDowell in the Hall of Statuary at Washington; provision for reforming the commitment laws for the insane, and a bill providing for a non-partisan State Board of Control for our eleemosynary institutions. In addition, your committee would propose that this Association should not take separate action toward securing a State Sanatorium for the tuberculous poor, but that through its Legislative Committee, or through a special committee, it give every possible aid to the work of the Kentucky Anti-Tuberculosis Association.

GEO. P. SPRAGUE,
W. W. RICHMOND,
BEN L. BRUNER.

Dr. J. W. Kincaid offered the following resolution:

"Amend Chap. IV Sec. II of By-laws to read: In case the regularly elected delegate is unable to attend the annual meeting of the Association, the President of the county society shall have the power to appoint a substitute, who shall have the rights and privileges of a delegate." In accordance with By-laws this resolution was laid on table to be acted on on Friday morning.

Dr. W. W. Richmond offered the following resolution, which was adopted:

"Whereas, the present manner of nominating the different county boards of health is unsatisfactory, often resulting in great worry, trouble and friction in the county societies, and the appointment of boards not working in harmony, thereby creating strife and unpleasant conditions between said boards and the different fiscal courts,

Be it resolved, that the Association recommends that the board of health of each county shall be selected by the State Board of Health, said appointments to be made by it upon its

judgment and knowledge of the duties of a county board of health, and the qualifications of the appointees necessary for good service, and that when possible the members be selected from the membership of the county societies."

Dr. Frank Boyd offered the following resolution, which was adopted:

"*WHEREAS*, The military surgeons in our army and navy have labored under great disadvantages in managing sanitary matters by reason of the fact that they have no commanding rank in matters pertaining strictly to the medical and sanitary departments, therefore be it

"*Resolved*, By the Kentucky State Medical Association that commanding rank should be given medical officers serving in the military organizations of this State in all hygienic and medical matters, the practicability and usefulness of which were so fully demonstrated at the encampment of the State Guard at Paducah during the fall of 1905, and further that we approve the order issued by Col. Noel Gaines and approved and promulgated by the Adjutant General, Percy Haly, and His Excellency, Gov. Beckham, giving commanding rank to the medical officers of the State Guard. And be it further

"*Resolved*, That we urge the incorporation of an order in the regulations of the State Guard giving commanding rank to medical officers in matters coming exclusively under their jurisdiction."

Dr. I. A. Shirley offered the following, which was adopted:

"*WHEREAS*, President Roosevelt, in an address recently delivered before the Long Island Medical Association, said that the building of the Panama Canal depended on the ability of the medical profession to make the hygienic conditions such that it will be possible for the engineering and other construction corps to follow, and

"*WHEREAS*, He has apparently lost sight of the great disparity between the salaries of the chief medical man and the chief engineer of that project, therefore be it

"*Resolved*, By the Kentucky State Medical Association in convention assembled, that our great and humane President be respectfully and earnestly requested to increase the pay of Colonel Gorgas to an amount at least equal to that of the chief engineer."

On motion the following expense accounts of Councillors were approved and payment authorized:

1st District—W. W. Richmond	.....\$70.50
3rd District—A. T. McCormack	.... 50.00
5th District—John G. Cecil	..... 21.00
6th District—R. C. McChord	..... 6.00
7th District—J. G. Carpenter	..... 21.00
8th District—J. E. Wells	..... 33.25

9th District—J. W. Kincaid	..... 21.15
10th District—I. A. Shirley	..... 50.65
11th District—J. S. Lock	..... 23.25

On motion the House of Delegates adjourned to meet at 8:00 A. M. on Friday morning, October 20, 1905.

In pursuance to adjournment the House of Delegates was called to order by President Clarke at 8:00 a. m. The first order of business, the election of officers, resulted as follows:

President, C. Z. Aud, Cecilian; 1st Vice-President, Murison Dunn, Richmond; 2nd Vice-President, R. M. Coleman, Paducah; 3rd Vice-President, J. M. Salmon, Ashland.

COUNCILLORS.

Second District, D. M. Griffith, Owensboro; Fourth District, D. C. Bowen, Nolin; Fifth District, J. G. Sherrill, Louisville; Seventh District, J. T. Wesley, Middleburg; Eighth District, J. W. Kincaid, Cattelletsburg; Eleventh District, G. E. Cecil, Flat Lick.

Orator in Medicine, Wm. A. Jenkins, Louisville; Orator in Surgery, W. O. Bullock, Lexington; Delegate to American Medical Association to succeed Dr. Ap. Morgan Vance, J. Garland Sherrill, Louisville.

Next place of meeting, Owensboro.

The motion of J. W. Kincaid to amend Chap. IV, Sec. II of By-laws, which had laid over from meeting of October 19th, was brought up and adopted.

Dr. John G. Cecil, Chairman of Council, reported that Council had determined to employ an expert accountant to audit books of Secretary and Treasurer, and to compare same with each other. This report was adopted by House of Delegates.

Dr. A. T. McCormack moved that Council take up matter of Campbell-Kenton County Society with power to act. Adopted by House.

Moved by Dr. Bullitt, and carried, that Ohio County be transferred from Fourth District to Second District, and Hart County from Fourth District to the Third District.

On motion thanks were extended to the members of the Jefferson County Medical Society for the excellent arrangements for the meeting and for the hospitable entertainment.

In the general meeting Dr. Louis Frank, seconded by Dr. Ap. Morgan Vance, offered the following resolution—to amend Chap. V, Section II of the By-laws so as to read: "The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the general session, *with the exception of the election of President. Nominations for President shall be made from the floor in the general session on the morning of the second day of meeting, the election to take place*

by *vide voce* vote in general session on the morning of the third day of the meeting. (The paragraphs in italics are the new articles proposed by Dr. Frank.)

This motion will hold over to be acted on by the ouse of Delegates in 1906.

Dr. John G. Cecil, Chairman, reported the following in memoriam of Dr. Ouchterlony:

"Dr. John Arvid Ouchterlony, ex-President of the Kentucky State Medical Association, died at his home in the city of Louisville, October 9th, 1905. At the time of his death he occupied the Chair of the Principles and Practice of Medicine in the University of Louisville. He had been the recipient of many hon-

"Dr. Ouchterlony was a man of broad scholarship, deep erudition and distinguished scientific attainment. From youth he was a stur-

dent, a hard earnest worker, and a persistent, patient searcher after truth. His interests, his zeal, his time and his energy were unreservedly given to his chosen profession. He was a teacher of unusual ability; his lectures were enriched with rare thought and apt illustration; he commanded and received the respect, admiration and loyalty of the many students who came under his tutelage.

"He was a practitioner of boundless resources, and inspired in his patients a devotion and fidelity that was as unusual as it was beautiful. As a consultant he was in constant demand, and his opinion was held in high esteem by his conferees. His contributions to medical literature were marked by profound thought, wide knowledge, and happy expression.

"Dr. Ouchterlony will be missed, as few men are missed, in the homes of the rich and the poor, in the lecture hall, and in the meetings of this Association.

"We mourn his loss. Peace to his ashes!

"JOHN G. CECIL.

"R. C. McCHORD,

"CHARLES G. LUCAS."

Dr. C. H. Vaught, Chairman, made the following remarks on presenting Dr. Steele Bailey with a beautiful gold watch on behalf of the Kentucky State Medical Association, and in accordance with the resolution of the House of Delegates:

"Mr. President:—There are times and occasions in the lives of all men when the mouth cannot speak the language of the heart; when words are totally and wholly inadequate and meaningless to express in coherent language the emotions either of joy or sorrow that well up from the unfathomable depths of the heart on occasions that call them forth; and this morning I realize a striking illustration of that fact. As chairman, sir, of a committee appointed by you, I have the distinguished honor, as well as great pleasure, to present this beautiful token of love and esteem, contributed by the

Kentucky State Medical Association to their gentle, modest, lovable, and brilliant ex-Secretary, Dr. Steele Bailey, and as you take this watch, sir, I know you well enough to believe that you will not appreciate it alone for its intrinsic value, but for the motive that prompted its gift by the Association that delights to honor you, and for the success of which so many years of your useful life have been consecrated. The great services you have rendered the profession of Kentucky cannot have a monetary value placed upon them, but, sir, I believe I tell but the truth when I say that every member of the Association loves you and wishes you that joy and happiness that can come alone from a knowledge of duty well done, and when your last call is made and the curtain is rung down on the last scene in this living panorama, in the gloom and darkness that must follow, may you receive the plaudit of the Great Physician, 'Well done, good and faithful servant, enter into the joys of thy Lord.'

On receiving the gift Dr. Steele Bailey made the following remarks by way of acceptance:

"Mr. President and Fellow Members of the Kentucky State Medical Association:

"I am deeply touched by this kind and generous remembrance on this occasion, and I can command no words that will adequately express my appreciation of this beautiful gift, and the all too partial words of my friend, Dr. Vaught. The most delightful friendships I have ever known grew up with the members of this Association during the nineteen years of my service as your Secretary. When I come to the meetings it is to meet dear friends that I have known many years. That you should honor me, as you have done in the past, and add to your expressions of good will and kind thought such a beautiful token of friendship and esteem as this, touches me to the heart and I am unable to express my gratitude and appreciation.

"I shall carry this beautiful watch during the remainder of my sojourn on this sphere, and every day it will be to me a reminder of your generous feelings toward me. I will value it above every other possession. I wish that I could convey to every one of you how much I value your kind attention and friendship, for then you would know my feelings at this moment, but I cannot do this with any words at my command. I can only say, thank you. Gentlemen, from the bottom of my heart I do thank you, and may God bless you every one!"

At the conclusion of the program of the morning session, the President-elect, Dr. C. Z. Aud, was escorted to the chair by Drs. D. W. Gaddie, and D. M. Griffith. In a few words Dr. Aud expressed his appreciation of the honor conferred on him, and promised faithful and loyal service to the Society.

THE SYMPTOMATOLOGY AND GENERAL MANAGEMENT OF TYPHOID FEVER.*

By O. B. DEMAREE, M. D., Frankfort, Ky.

Mr. President and Fellow Members:— It is with no little trepidation, I assure you, that I venture to present my views on the management of a disease which, on account of its relentless ravages, robbed me of a brother a little less than one month ago. If you have anticipated a paper teeming with scientific facts with which you are unacquainted, or an article perfect in its composition and rhetoric, you are doomed to disappointment.

Fully realizing my inability to prepare such a paper, I have instead confined my remarks, to the best of my knowledge, to the common-sense view of the subject which is based upon sixteen years of personal experience in the treatment of this malady, together with the aid of what I could glean from medical-journals and text-books. If my paper is of sufficient merit to call forth a free discussion, I shall feel amply repaid for this effort.

The stage of incubation varies much in duration, and is generally considered to be two or three weeks, although it is sometimes much shorter. The onset is usually slow and gradual. The patient complains of a tired feeling all over, chilly sensations alternating with flashes of heat; frontal headache which becomes more intense toward evening; more or less aching of the limbs, loss of appetite, and slight nausea. There is sometimes diarrhoea, but the patient more often complains of constipation. The countenance is dull and, as a rule, there is a slight nose-bleeding. The tongue is coated with a yellowish-white fur, with the exception of the tip and margins, which are redder than usual; and the papilla over them very prominent, the latter being an early diagnostic sign of considerable value. The preceding symptoms come on so gradually in many cases that the patient does not consult a physician until the disease is well established, and the temperature found as high as 101 and 102 degrees F. In a few cases the onset is sudden, and the temperature rises rapidly, so that in some cases it may reach 102 or 103 degrees F. the second or third day.

Sometimes the headache is so severe and continuous, and accompanied by such violent pain and local tenderness in the back of the neck, that the disease is mistaken for cerebro-spinal meningitis.

Delirium is sometimes an early symptom and, when occurring late in the disease, is an

unfavorable prognostic sign. Bronchial catarrh is often an early symptom, especially in children and elderly persons. It is usually mild in character, but in some cases may be severe at the onset. It is very difficult to definitely fix the actual period of onset. Flint's rule, fixing the onset as being the day the patient first takes his bed, is probably the most reasonable solution of the matter. Many of us know from experience, however, that this rule for obvious reasons cannot always be relied upon.

To make my subject more comprehensive I have divided the symptoms into four distinct parts, embracing the first, second, third, and fourth weeks of the disease.

In mild cases, after complaining for several days of the symptoms already described, the patient becomes so weak that he takes his bed, or more often consults a physician who, suspecting the disease, sends him to bed. The patient may complain of severe headache, pains in the back of the neck, in the small of the back, and extremities. Wakefulness is sometimes a distressing symptom. As a usual thing, delirium is absent during the first week. The patient is dull and apathetic. The skin is hot and dry, and toward the end of the week a few (usually not more than 20 or 30) "rose-colored spots" may appear—generally over the abdomen, but occasionally in other parts of the body; but never on the face, palms of the hands or soles of the feet. There is slight cough, and on examination of the chest a few bronchial rales are found. The tongue is coated with a yellowish-white fur, leaving the tip and margins clear and red. The patient usually complains of nausea and loss of appetite. In some cases there is a decided irritability of the stomach. About the end of the first week the headache abates and more or less somnolence and delirium come on, the latter being more or less active at night. More or less diarrhoea is generally present, but constipation may prevail. Toward the end of the week, examination reveals enlargement of the spleen. The pulse increases in frequency, but not in proportion to the temperature.

In all cases variation in temperature is one of the most important early symptoms. During the first week there is a gradual and steady rise in the temperature with regular morning and evening variations, each evening temperature being about two degrees F. higher than the previous night, so that at the end of the first week it is at its maximum, 104 or 105 degrees F.

Typhoid fever does not always follow a typical course, and marked deviations may be produced in the temperature by complications.

During the second week the symptoms increase in severity. The patient becomes

* Read before the Franklin County Medical Society September 2, 1905.

weaker, from day to day, until he is no longer able to help himself. Dullness and apathy become more marked, and deafness more apparent. The countenance is flushed, and may become expressionless. Headache disappears, and delirium begins and generally lasts until convalescence is established. In severe cases coma-vigil, carphology, and sub-sultus tendinum may be present, and death follow at the end of the second week. As the disease passes into the second week the tongue becomes more heavily coated. The coating may become brown and dry, and sordes collect upon the teeth and sides of the mouth in sufficient quantities to form crusts.

At any period in the course of the disease the tongue may suddenly clean off and present a shiny red "beef colored appearance." The tongue and lips may become dry, cracked, and fissured. The stomach is often less irritable than during the first week. The abdomen becomes tympanitic, and tenderness with gurgling is noticed in the right iliac-fossa. The pain and tenderness usually increase as the disease progresses and, in the advanced stages, it is sometimes so marked that slight pressure over the region is unbearable. In typhoid fever so long as the abdomen remains typhanitic no matter what the temperature and pulse of the patient may be, he is in more or less danger, for it shows that there are intestinal changes still in progress, and that the reparative processes are not complete. Diarrhoea, with the characteristic typhoid discharges which are a yellowish-green color, described as pea-soup discharges, is generally present. Hemorrhage may occur toward the end of the week. The pulse become more rapid, and the temperature maintains the elevation of the end of the first week, and may ascend still higher. The heart's action becomes weaker, so that in some cases the first sound can scarcely be heard. Emaciation is probably more marked and rapid in this than in any other form of fever. It comes on early and is progressive. In severe cases the patient's weakness and emaciation becomes intense, and the muscular movements are made with great difficulty. In the third week the emaciation, flushed condition of the cheeks, and eyes wide open, form a very characteristic type of countenance. Subsultus-tendinum may be quite marked. Delirium continues, and coma-vigil may be pronounced. Diarrhoea is often severe, and hemorrhage and perforation may occur during this week. The pulse become more rapid and feeble, and the first sound of the heart may be scarcely audible. The temperature in the milder cases may gradually fall to normal, but in severe cases it continues as high as during the second week, and may present marked remissions.

During the fourth week as a general rule convalescence becomes well established, and there is a gradual abatement of the symptoms previously described; in severe cases, however, the disease may last throughout the fourth and the fifth weeks in the same way as in the third, except that the emaciation and adynamia are increased. In fatal cases the urine and feces passes involuntarily, the pulse become more rapid and weak, (the running pulse) and death takes place from heart-failure, asthenia, hemorrhage, or perforation.

The temperature can be irregular, and may rise from slight causes. During this week the surface of the tongue may present a glazed appearance, and is more or less cracked. The gums and tongue often bleed, and sordes is well marked. When convalescence becomes established the tongue gradually assumes its normal appearance. The odor of typhoid fever is of such a distinctive character that, by means of it, a diagnosis can often be made. The distinctive odor of "new-mown hay" noticeable in some cases, is of fatal significance, notwithstanding the fact that the other symptoms may not at the time be alarming.

Complications and Sequella. — Retention of the urine occurs in many cases. Boils and abscesses may appear on the back, neck, and other parts of the body during convalescence. Double abscess of the parotid-gland occurred in two of my cases. (Both recovered).

Bed sores are present in some cases, especially in those patients where convalescence is prolonged from complications and sequella.

Inflammation of the larynx with stenosis, or destruction of the cartilage, is an occasional and serious complication.

Pulmonary inflammations are the most frequent complications of typhoid fever. In a large per cent. of cases hypostatic congestion is present. Either bronchial or croupous pneumonia may occur early in the disease, or in the second and third weeks. Nephritis is not a common sequella, but may occur in the stage of convalescence. Acute yellow-atrophy and abscess of the liver very rarely occur. Post-typhoid insanity is noticed in a very limited number of cases and, when present, usually disappears within six months or one year. Cases in which typhoid-spine as a complication occurred, have been reported by Gibney and Osler with a full explanation of this condition, which would lead us to believe that it is nothing more than a true post-typhoid neurosis. Measles, erysipelas, and septicaemia may occur as complications. Relapses occur in from three to fifteen per cent. of all cases; usually one and sometimes as many as three or four take place.

Prophylaxis. — The complete isolation

of the patient is necessary. The sick room should be well ventilated, and absolutely clean. The patient should be sponged regularly, and all soiled clothing at once removed. The nurse should cleanse her hands with a 1 to 40 solution of carbolic acid whenever they are soiled. The discharges from the bowels and kidneys should be thoroughly disinfected with a 1 to 500 solution of corrosive-sublimate, or chlorinated lime four ounces to the gallon of water. All discharges should be promptly buried in a trench three feet deep, and not thrown into the ordinary privy as is often the practice in small towns and country places. All soiled clothing should be disinfected with a solution of corrosive-sublimate and permanganate of potash two drachms each to the gallon of water; they should be allowed to stand in this solution for twelve hours, and afterwards boiled for an hour. The source of the water supply should be carefully and frequently inspected. The well in country places should be situated at a distance from any source of contamination. It should be deep, and protected to prevent surface-water from running in.

The milk supply should be looked after, and if suspected to contain bacilla, the danger may be removed by boiling.

Good drainage is an important factor in the prevention of typhoid in cities and towns. When the streets and alleys are kept free from garbage, manure, and other impurities the liability to typhoid is lessened. Typhoid fever is unquestionably a filth disease, and cleanliness is one of the best measures of prevention. Vaccination against typhoid fever has been largely discussed among pathologists lately, but clinical application of this measure has, as yet, been limited and unsatisfactory.

Treatment. — Careful nursing throughout this disease, as well as early treatment are important factors in the management of typhoid fever. The danger of moving the patient after the first week is great; if moved, a rubber-tired conveyance should be used, an ambulance equipped especially for the purpose being preferable. Rest in the incumbent posture is of vast importance. A single-bed with mattress on springs should be selected. A rubber cloth should be placed under the sheet, the covering should be light. In country cases a room that is most separate from the remainder of the house should be selected. In cities a back room is to be preferred on account of street noises. A bed-pan and urinal should be used.

The body should be sponged night and morning, the night-dress and sheets changed each day, and all soiled clothing removed at once and placed in a disinfectant solution. The patient should be kept as quiet as possible,

and his wants attended to with regularity and care.

All unnecessary company should be prohibited. The patient should be closely watched, and never left alone in case of delirium.

Cold water should be given *ad-libitum*. The patient's mouth, nose, and throat should be kept clean with a listerine wash.

The temperature should be taken at least three times daily, and the mornings and evenings variations closely observed, and recorded in a chart. Liquid nourishment should be given in limited quantities, and at stated intervals. Milk is altogether the best food, and should form the principal diet of typhoid patients; from three to five pints daily constitute the proper amount. Clear soups and light broths may be given in cases where milk is not tolerated by the patient.

Alcohol may be given in moderation, commencing about the middle of the second week; when there is great prostration it is of positive value.

Without question one of the most efficient and reliable of the antipyretic agents is the external application of cold by means of baths, packs, and sponging. In many cases sponging of the surface alone will suffice. I am free to say that I am not an advocate of either ice-cold baths or packs in other than hospital cases, and not then in children, nervous, and elderly persons.

The antiseptic method of treatment has been much commented upon both pro and con. These remedies that have been most generally advocated are bismuth, salicylates, betanaphal, sulphuric acid, chlorine, salol, boric-acid, sulpho-carbolate of zinc, arsenite of copper, and acetizone.

Most of these agents have not only been discarded as useless, but considered harmful to the patient by some of our best clinicians.

The salicylates have given me the most favorable results, and I have relied upon the salicylate of quinine and salol in combination in the majority of my cases for the past fifteen years, with a mortality of less than five per cent. I have tried acetizone but, as yet, with no good results. I am an advocate of calomel in fractional doses, and feel confident that it is of great value in the early period of the disease. Headache and sleeplessness can generally be relieved in the early stages of the disease by the administration of bromides and cold applications to the head; in the latter period, opium is altogether the best remedy.

The other nervous symptoms, coma-vigil and subsultus-tendinum, rarely occur in mild cases, but when present, cold applications to the head with sponging will usually afford relief. In the adynamic condition, stimulants in the form of strychnia and whiskey are very

essential, and when once commenced, they should be given at stated intervals, unless contraindicated. When under the use of alcohol the tongue becomes dry, the patient more restless, the delirium more active, the temperature higher, and the pulse more frequent, it is very conclusive evidence that stimulants are not indicated; on the other hand, if under their use the pulse become fuller and more regular; if the first sound of the heart is more distinctly heard, or if having been absent, it returns; if the restlessness and delirium are less marked, the tongue more moist, the patient more rational, it is equally certain that stimulants are indicated, and are accomplishing the desired purpose. Dryness of the tongue and lips can be much relieved by washing with a weak solution of either boric or ascorbic acid; a very weak solution of permanganate of potash may also be used. Vomiting can sometimes be relieved by the application of mustard over the stomach; bismuth and cerium exalate are also much employed, and iced champagne is often of much value. Tympanitis when moderate in degree does not require any special treatment; but when excessive the diet should be reduced in quantity, turpentine stupes applied to the abdomen, and turpentine administered in ten drop doses every four hours, either in capsule or emulsion. The use of the rectal tube will sometimes give relief, if the gas is in the large intestine.

Constipation is present in a certain proportion of cases, and the bowels should be kept free with salines or olive oil, remedies which do not materially increase the peristaltic action of the bowels. I have received gratifying results in many cases by the use of normal saline enemas of two or more pints used every evening during the second and the third weeks. It cleans out the bowels better than any measure I have tried and, if commenced early and used consistently, it will go far toward preventing tympanites. Diarrhoea, unless excessive, requires little attention; when profuse, opium and bismuth in combination are our most reliable remedies. The usual time for the occurrence of profuse hemorrhage is the latter part of the second or the beginning of the third week. A sudden fall in the temperature of two or three degrees when the patient is severely ill of typhoid fever during the second or third week, accompanied by extreme prostration, is very conclusive evidence that intestinal hemorrhage has occurred, although externally the hemorrhage may not have made its appearance. When symptoms of hemorrhage appear the patient should be kept quiet, the foot of the bed elevated, and the blood which passes through the bowels should be removed with as little disturbance as possible. All stimulants should be with-

held temporarily, and food should be given in small quantities. An ice bag should be placed on the right iliac-fossa. Opium is the best internal remedy for, while it lessens the peristaltic action of the bowels, it also quiets the patient. Turpentine is of special value and should be given in 10 or 15 drop doses in the form of an emulsion every three or four hours. Normal saline solution in amounts of from 6 to 8 ounces may be injected into the subcutaneous areolar tissue. Hypodermatics of Adreniline-chloride in doses of 30 to 40 minims is highly recommended.

Gelatine injections may be used with good results. The bowels should be kept quiet for, at least, six or seven days. Perforation is a very grave complication, and has not been so far treated with much success.

Prompt operative interference within the first twelve hours after the symptoms of shock have passed away affords the chance.

Epistaxis as a general thing requires no special treatment, but if occurring late in the disease it should receive prompt attention. The application of ice to the nose, or the use of a weak solution of the tincture of iron applied to the schneiderian membrane will often suffice. In severe cases it may be necessary to plug the posterior nares. Local applications of adreniline chloride have given me satisfactory results.

Hypostatic congestion of the lungs can many times be prevented by changing the position of the patient every few hours; when it occurs, whiskey and carbonate of ammonia should be given. The heart should be frequently examined, and if it is weak, strychnine sulphate in doses of from 1-30 to 1-60 of a grain should be administered every four hours. The patient should not sit up, nor be allowed to make any sudden movement in bed.

The retention of urine is a frequent complication; a soft rubber catheter should be used and the greatest care taken by thorough cleanliness to prevent the introduction of germs into the bladder.

Cleanliness is the best means of preventing bed sores. So long as there are no erosions the parts should be frequently bathed in spirits of camphor or first-shots, and the points of attack should be relieved from all pressure. When bed sores occur, they should be frequently washed with a weak solution of carbolic-acid and afterwards treated with balsam of perue spread on lint or sterilized gauze. The return to solid food in the stage of convalescence must be made with caution, especially when the attack has been severe. Boiled custards, soft-boiled eggs, and jellies are to be permitted first. As a general tonic after typhoid fever I know nothing better than the elixir of iron, quinine, and strychnine.

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THE GREAT AMERICAN FRAUD.

This is the title used by Samuel Adams in a series of articles on the patent medicine evil, which have appeared in Collier's Weekly for October 21st, October 28th, and November 4th. Every physician as well as every layman should read these articles, as they are very illuminating, throwing the limelight on one of the darkest pages of our much vaunted American civilization.

Laymen should read them, so that they may know the character of stuff that they pay good money for when they are sick, or fancy they are, and prescribe for themselves, or permit an accommodating druggist to do it for them. The following figures given by Mr. Adams, showing the amount of alcohol content of a number of the leading nostrums, give food for serious thought:

Whiskey.....50 per cent.
Champagne... 9 per cent.
Claret8 per cent.
Beer5 per cent.

Peruna28 per cent.
Paine's Celery Com-
pound21 per cent.
Hostetter's Stomach
Bitters ...44 per cent.

These figures explain in no uncertain language the reason for the popularity of so many nostrums. These things are really nothing more nor less than cheap cocktails, and not so cheap either when it is considered that what costs eight cents is sold by the nostrum makers for a dollar. Drunkards, men and women, and even children, are being made every day all over this broad land. Men, and especially women, prohibitionists, W. C. T. U. women, are innocently, or rather ignorantly becoming daily as dependent on the patent medicine bottle as the frank drunkard is on his whiskey bottle.

Physicians are interested, because they should know these facts, and be able to explain the perniciousness of these things to

their people, and so put them on their guard against an evil which is alarmingly widespread and which has already entrenched itself in such power that it has virtually muzzled the lay press of the whole country. Nay, it has gone further, and by a devilish ingenuity has actually converted that press, the "free" press of America, into an obedient creature which fights its legislative battles for it, prevents the passage of unfriendly legislative enactments, and actually keeps out of the papers of this whole country everything which might be construed as detrimental to the patent medicine interests. This sounds unbelievable, but Mr. Adams has facts at his command which are convincing.

Collier's Weekly is practicing what it preaches, and so is the Ladies' Home Journal. They both take the views that a publication is responsible within certain limits for the verity of things advertised in its columns. We have frequently urged this in regard to medical advertisements. Collier's good faith is evidenced by the following:

"Collier's will accept no advertisements of beer, whiskey, or alcoholic liquors; no advertisements of patent medicine; no medical advertisements or advertisements making claims to medicinal effects; no investment advertising promising extraordinary returns, such as stocks in mining, oil, and rubber companies. The editor reserves the right to exclude any advertisement which he considers extravagant in claim, or offensive to good taste."

Now here is where the interest of the physician comes in especially:

The Proprietary Association of America has a strong organization, has established a Press Bureau, and is now fighting the American Medical Association and the medical profession. The nostrum interests which will be hurt by the investigations of the Council of Pharmacy and Chemistry A. M. A., will in all probability align themselves with the "Proprietary Association," and will endeavor to hurt the medical profession and especially the American Medical Association. Let all true men stand prepared to lend all the assistance possible. We may expect that the newspapers will either be silent or will attack us and our Association.

In another column is published a communication from the President of the Association of State Medical Journals, asking for unity of action of all the State Journals in actively supporting the American Medical Association and its Council on Pharmacy and Chemistry, and Collier's Weekly.

Let us all bear in mind that the method employed by the "Proprietary Association of America" is to fight board of health legislation through the medium of a muzzled and

subsidized lay press. Make your representatives in the State legislature understand these things, and then see that they stand ready to lend us their aid instead of offering opposition when the proper time comes. There is probably nothing of greater importance to the people and the medical profession of the United States at this time.

It is perhaps too much to expect privately owned journals to join hands and help us in the fight. But if there are any which can look beyond pocket and see truth, we shall welcome them as allies and be grateful for their assistance.

Already two of the great privately owned weeklies, the Medical Record and the New York Medical Journal, have shown their indifference, and their active hostility, to the effort to purge the advertising pages of medical journals of improper advertisements. If these great journals are hostile, what shall we expect from the smaller fry, whose existence is always hanging in the balance? Perhaps not much. But let us all remember that those who are not for this movement are against it, and in placing our subscriptions on January 1st, let us be governed accordingly.

(It will be gratifying to Kentucky doctors, in reading the two subjoined editorials clipped from our exchanges, to note that Kentucky's sons are honored, and their words are harkened to, in the far parts of the great world.)

DR. McCORMACK'S ADDRESS ON ORGANIZATION.

Every physician in the State who has not availed himself of the opportunity to hear Dr. McCormack at one or more of his meetings, has suffered a distinct loss. There is probably no man living in this country to-day who so thoroughly understands existing conditions in the medical profession, or who has given such an object lesson of what an improvement can be secured by careful, persistent, conscientious work. The *Journal* will endeavor to give an outline of his remarks in this and subsequent issues, but cold type can but faintly imitate the spoken words:

Any attempt to secure necessary or desirable legislation for the protection of the public, if originating in or supported by medical men, will reveal a rather unpleasantly startling condition. Very many legislators will say that while the measure appears to be a good one, their lack of respect for the medical fraternity is such as to make them skeptical of the proposition and of the possibility of there existing some ulterior motive. Further investigation will show that this feeling is shared, in large part, by many laymen other than legislators.

Inquiry elicits the fact that this unfavorable opinion results from statements made by physicians themselves. Quite probably the family physician of the legislator in question has told him, of course confidentially, that most of the other physicians in his vicinity are really not up to standard; that such-a-one has made a gross error of diagnosis; that another is disreputable; that still another has lost several patients by careless operations, etc. Another man from the same district, who happens to have a different physician, has been advised that all the other doctors in that community, including the medical advisor of the first man, are not what they should be. And so it goes. In short, the tales and the tittle-tattle of the physicians themselves have destroyed the respect which should be had for them.

In other professions the members are much more harmonious; they dwell together in charity. Why is this? Observation indicates that there is a lack of harmony and unity in those walks of life wherein the individual leads an isolated life. Doctors but seldom come in contact with each other in the discharge of their professional work. Each one has a certain following which considers him about the best of his kind, and in due course he begins to be possessed of the same idea, and to regard his fellow practitioner as rather below him. Added to this must be considered the idle comments of nervous and gossipy old women, who will persist in maligning one physician to another, if the attendant at the same time will but listen to them.

Thus is still further estrangement produced. Dr. Osler has well pointed out the danger of listening to the disparaging remarks of a patient upon another physician, and it must be remembered that if the patient will rend her previous medical attendants limb from limb, she will doubtless extend the same courtesy at some future time to her present or future physicians.

Only by coming into personal contact at frequent intervals can medical men really know and appreciate each other, and as their occupation does not bring them together in the regular performance of their professional duties, this end should be secured by frequently meeting together in societies. If the physicians of any community exhibit little or no respect for each other, the laymen of the community can hold but little respect for them all as individuals or for the noblest of professions which they are disgracing. This is but natural, and nothing else could be expected. In communities where the medical men are at outs, where they show little if any respect for themselves, each other, or their profession, a distinct harm results not only to themselves, but to their patients and to the community in

general. The physicians in such places tend to reduce their just fees and to cut into each other; they allow quacks to rob the sick and the poor; they resort to or permit contract and lodge practice, a most disastrous and unfortunate evil; in short they slowly but surely fall below the standard which they should keep up to, and they become less competent doctors. Thus the community suffers not alone a loss in proper respect for what should be regarded as the highest and noblest of professional callings, but it finds itself served by cheap doctors and inefficient ones; by men who, in numerous cases, are so reduced in the financial side of their professional work that they cannot supply themselves with a proper equipment or with sufficient literature to keep abreast of the times.

All of these evil conditions physicians bring upon themselves by and through their ignorance and their petty jealousies, their quarrels and slanderings, their general lack of appreciation of each other and of one another's work. In medical schools, students are not taught, as they should be, the fundamental principles of medical ethics and right conduct; too often they are taught, by word and precept, a spirit of professional jealousy and rivalry, and leave the door of their medical school with anything but a correct appreciation of the medical gentlemen who are connected with other teaching institutions. Thus at the very commencement of their professional life a wrong start is made, due to an error in education, and they go out into the world to practice, to lead more or less isolated lives, to treasure the spirit of contention, and to add to the disrepute in which our profession is placed by our own members.

In many small towns where two or three physicians are practicing—and fighting—the entire community is rent by these medical dissensions, and men who should be friends and partners in their work, are not on speaking terms, but are detracting each from the standing and the usefulness of the other, and all are equally bringing down reproach and disesteem upon the entire medical profession. People judge of general conditions, very largely, from their own personal experience; it is an axiom that we can only think in terms of our own experience, and if an individual is born into and grows up in a community where the physicians belittle each other, and hence their profession, he will grow to adult life with little or no respect for the entire profession represented—or rather misrepresented—by these quarrelsome doctors.

Financially—and this is an exceedingly important matter—they all suffer. It is important that the physician should have a sufficient income with which to keep himself up-to-date;

to equip his office with those things which he needs in the proper care and treatment of his patients; to supply himself with sufficient literature to keep his mind educated, and to know what other men are learning and discovering and successfully using. A doctor who is making a bare living, who cannot supply himself with the necessary tools of his profession, is a poor doctor for the community to depend upon. Where there are these baseless quarrels and dissensions, the physicians will not consult or work with each other. When one of them is confronted by a case which he cannot understand, or cannot handle if he does understand it, instead of calling in his neighbor, who possibly is quite competent to handle the case, he sends the patient away to a distant city, and thus turns from the community—and from himself—a certain amount of money that should remain at home. As has been pointed out, the injury is not alone to him or his colleagues, but to the community as well, for the people do not get the service and the attention from their poorly paid physician which they are entitled to receive, and which they should pay for. The education of the competent physician never ends, and the day of the ignorant doctor has gone by. But to keep up this education, a certain income is absolutely essential, and to secure this income it is equally essential that harmony take the place of discord, and that strife and misunderstanding give way to peace and understanding.

In the legal profession, we almost never see serious dissension. Lawyers have always worked together in harmony, and it has been said that two lawyers will not quarrel unless both have received a good fee—in advance. If we investigate this, we quickly see the reason. A lawyer's work brings him constantly into contact and association with other lawyers; his whole life-work is a post-graduate education; every trial is a clinic; his education is of necessity and by virtue of the very nature of his calling, constantly uppermost, even though unconsciously so. The lawyer meets his kind every day that he practices his profession; he learns to appreciate his own weaknesses and other men's strength; his mind broadens from day to day and from year to year; he does not lead an isolated life.

Contrast his case with that of the average physician, whose calling forces him to lead an isolated life; who infrequently comes into direct contact with his kind in the course of his work; whose calling is narrowing rather than broadening; whose further education is a matter of direct personal effort, and not a matter incident to his work; who is daily exposed to the temptation of believing the tales and the gossip so generally poured into his ears by

irresponsible people. It is estimated that there are over 80,000 physicians in this country who have never belonged to any medical society, and that there are 50,000 who have never taken or received any medical journal save such as may have been gratuitously sent to them, like the Medical Brief!

(To be continued.)

(From California State Journal of Medicine, Nov., 1905.)

THE SOCIAL FACTOR IN MEDICAL CONVENTIONS.

The London Lancet for Aug. 5, commenting on Dr. McMurtry's presidential address at Portland, before the American Medical Association, refers to what it terms his "happy remark" on the social instinct of the profession. It further says: "There can be no doubt that social gatherings work for the ultimate good of all concerned. In nearly every district the struggle of competition is so great that relationships are liable to be strained and little misunderstandings are of frequent occurrence. It cannot be said that the public is innocent in the matter, since whenever medical topics arise some unfortunate yarn is apt to be told to the detriment of some practitioner and considerable self-restraint is frequently needed to prevent an abrupt challenge of an assertion or a demand for corroborative details. Libellous stories and injurious innuendoes may rankle so long as there are no opportunities for getting at the truth and many lamentable misunderstandings may be developed in the absence of some friendly common ground of meeting. Medical men who have the social instinct will probably discuss their little differences in an amicable fashion if they have the opportunity of meeting without the formality of a call demanding an explanation, and it is probable that by mingling 'in pleasant friendly intercourse' not only are the mole-hills prevented from being made into mountains, but they are perhaps smoothed away. Good fellowship is an essential in every association and it can be fostered by much knowledge."

(From St. Louis Medical Review, Department of Miscellany, for October 17th, 1905.)

(By a special arrangement of syndicating editorial matter among State Journals, the *Kentucky Medical Journal* publishes the following editorials from the California State Journal. From time to time editorial matter from it and other State Journals will be printed in these columns:)

DIRECTLY INSULTING.

We all know that the American Medical

Association is a body truly representative of the very best in the medical profession of the United States and that its efforts are and have been directed toward improving and helping American physicians. A recent undertaking of the Association was the organization of a Council on Pharmacy and Chemistry with the object of protecting the physician and the patient from some of the all too many frauds foisted upon us by lying and utterly unscrupulous "manufacturers." The committee on chemistry of this Council recently reported on certain so-called remedies and this report we had the pleasure of reprinting in the July Journal on page 223. Among other things, "phenalgine," which the "manufacturers" claim to be a definite chemical substance, was shown by analysis to be merely a mixture of acetanilid, sodium bicarbonate and ammonium carbonate. The five gentlemen whose signatures are attached to this report are all of them chemists of national, if not indeed of international, reputation, and one of them is the chemist in charge of the Bureau of Chemistry of the Department of Agriculture of the United States, Dr. H. Y. Wyley. The Association is possessed of sufficient of this world's goods to satisfy a judgment and we would expect, if any concern had been injured by the Association Council, to see such "manufacturer" promptly file a damage suit. But a damage suit brings to light facts—and this is sometimes dangerous—so the "manufacturers" of "phenalgine," this acetanilid mixture, have not brought a suit. They have bought two pages of the Medical Record, a journal which has, heretofore, been supposed to be published in the interests of the medical profession, and in these two pages they print what is nothing more nor less than a direct and unequalled insult to every reputable physician and especially to every member of the American Medical Association. It is almost inconceivable that the *Medical Record* could or would permit itself to allow such a gross insult as it issued to the world in its number of September 2d. Are reputable medical men going to permit this sort of thing? Are they going to continue to support a journal which permits "manufacturers" of this class to use its pages for the perpetration of insults directed at the medical profession and its representative body of the A. M. A.? Are we so grovelingly tolerant that we will continue to contribute our good money—in the shape of subscriptions—to the support of a publisher that will permit his advertisers to so outrageously insult us? Think this over carefully and then, if you are a subscriber to the Medical Record, consider whether you desire to aid

that journal in allowing advertisers to insult you, by continuing your subscription.

PATENT AND SECRET PROPRIETARY MEDICINES.

Some weeks ago we published a letter from Mr. Bok of the Ladies' Home Journal in which he appealed to physicians for aid in the fight against patent medicines. Since then some correspondence has passed between Mr. Bok and the editor of *The Journal* (A. M. A.) The last letter received was accompanied with a number of advertisements clipped from medical journals—and we regret to say some were from *The Journal of the American Medical Association*, one of which is still there, and probably will be till the contract expires—with a query, "What is the difference between these and 'patent medicines'?" No reply has been sent, as we were not able to answer. If any of our readers can tell the difference between most of the secret proprietary medicines that are advertised to physicians in medical journals and "patent medicines" that are advertised to the public in newspapers, we hope they will inform us so that we can reply to the editor of the Ladies' Home Journal.—*Journal A. M. A.*, September 9, 1905.

(*The State Journal* wishes to congratulate the *Journal A. M. A.* on this frank expression regarding certain undesirable advertisements which appear in its pages; this attitude disarms criticism. It is only to be regretted that such a statement as this was not made a year ago, in which case we would have been spared the necessity of making unpleasantly critical remarks. We are particularly glad to note the public announcement that the objectionable advertisements will be dropped from the *Journal's* pages as the contracts expire, and we may look forward to the *Journal* in 1906 and therefore taking that position in medical journalism which the Association has taken among American medical men—in the front rank of those who are earnestly striving for the right by example as well as by word.—Ed.)

"MURDERED BY ADVERTISEMENT."

Patent medicine horrors never reached a point of deeper degradation than in the yellow fever troubles of the South. Mr. Samuel H. Adams, whose series of articles will begin probably in five or six weeks, will hardly have anything more startling to narrate than the incredible performance of "Peruna" in alliance with the New Orleans Times-Democrat. This sheet has accomplished a feat of prostitution which, considering its pretense to respectability, probably sets the record. While the South is struggling to check a peril of the direst magnitude, this newspaper publishes an interview with "Dr. Hartman," with the fa-

miliar allegation that he "said in part," and all other devices to make it look like an important piece of news. Its headlines are: "How to Avoid Yellow Peril. An Interview With Dr. Hartman Concerning the Yellow Plague." To the reader this is the genuine opinion of a physician. He cannot know that Dr. Hartman is the head of the Peruna Company, and that the Times-Democrat, in whom the reader presumably has some trust, is selling itself and the safety of its constituents for a bag of gold. "A summary of this interview," the Times-Democrat informs us, "is being spread broadcast over the United States for the benefit of yellow fever sufferers." The gist of it is that, while screens and other precautions are advisable, Peruna should be taken at once and continued during the whole course of the epidemic. "I feel sure," the doctor went on to say (!), "that any person following this advice is in no danger of taking yellow fever." For anybody who believes we have taken too seriously the patent-medicine evil and newspaper complicity therein, this unspeakable outrage should be a lesson. Is there anything to which men cannot be led by money? To own a newspaper and hire it out to perilous fraud in an emergency like the yellow fever danger almost surpasses one's belief in human greed. No more disheartening proof of the need of the crusade which we have begun could possibly have been offered.—Collier's.

(Collier's, in the editorial here reprinted, uses the term "patent medicine" in the sense in which the public generally uses it. We beg to call attention, once more to the fact that these preparations of the "Peruna" class are not *patent medicines*; they are simply nostrums advertised directly to the public. In this connection it is interesting to note that, according to some pharmacists in San Francisco, the sale of these so-called "patents"—really nostrums—has fallen off fully fifty per cent. in the last year or so. That is certainly encouraging.—Ed.)

Collier's has very justly and moderately scored the newspapers for this sort of murderous "write-up," and a number of medical journals have expressed their pleasure and their gratitude for the outspoken attack by Collier's Weekly. The same sort of thing is going on right along in many so-called medical journals, principally of the smaller class, and we sit supinely and utter never a word. Is there any material difference, so far as rankness is concerned, between the write-up of "Peruna" referred to by Collier's and the following write-up of "Tongaline" which appeared in the August issue of the *Mobile Medical and Surgical Journal*? If there is any such difference we should be delighted to

have the *Mobile Medical and Surgical Journal* point it out to us:

"*Stegomyia fasciata* has produced an epidemic of yellow fever in certain sections of Louisiana and adjoining States.

"*Stegomyia punctata* has inoculated thousands with virulent malarial germs throughout the balance of the Mississippi Valley.

"Tongaline Mellier, is one of its forms as indicated, antagonizes and destroys the effects of these parasites on account of its extraordinary eliminative action on the liver, the bowels, the kidneys and the pores, whereby the poison is promptly and thoroughly expelled."

Do you believe it?

DR. BILLINGS' PAPER.

The paper by Dr. Frank Billings, of Chicago, read at the last meeting of the A. M. A., is well worth your careful reading and inward digestion. By special arrangements with the *Journal A. M. A.*, this paper will appear simultaneously in that journal and in a large number of the State Society journals. Only two State Society journals flatly refused to publish this paper; one of them alleged lack of space, and in the other case the editor said that he was not in full sympathy with the sentiments expressed by Dr. Billings—doubtless because the advertising pages of the journal assist in promoting the use of a goodly number of the rank nostrums mentioned by Dr. Billings. It is worth while to ponder upon a little plain truth once in a while, and certainly there is enough of it here presented to warrant considerable "pondering." These nostrums can only live while they make money for their manufacturers, and while their manufacturers are spending money in liberal purchase of the so-called "medical" journals.

They do not live because of their own merit, for hardly one of them has the slightest particle of actual merit to commend it to professional attention.

If they stop advertising, they die. Nearly all the medical journals in the country are published to make money; any service they may render to the medical profession is a secondary consideration; primarily, their owners have but one object—to make money. They do not care how they make it, so long as they make it, and the more they can make, the better pleased they are. The journals which are the biggest, and which ought to be the best, are amongst the worst sinners; if there is a nostrum so bad that the big weeklies, the *Boston Medical and Surgical Journal*, the *Medical Record*, the *New York Medical Journal*, and the *Medical News*, will not permit it advertising space—if paid for—we do not

know it. These nostrums and most "proprietary" mixtures, live on graft—lies, deceit, secrecy, and fraud—and the bought-and-paid-for "medical" journals help them in the graft. Remember, they do not thrive on their own merits. Will you not look through the advertising pages of the journals which you subscribe for, and if you see the advertisements of these nostrums that outrage professional decency, stop your subscription. As Dr. Billings says, "Sympathy will not win battles," and this is a battle for decency and honor. Will you help? You can do much if you will; will you do it?

(California State Journal of Medicine for December.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The *Boyd County Medical Society* met November 2nd, 1905, at 7:30 p. m., in the City Building in Ashland, Dr. G. W. Moore, President, in the chair.

Dr. J. D. Mutters, of Rush, read a most excellent paper on "Leucocytes in Diagnosis—Information Furnished." Discussed by the members. Several interesting cases were reported.

Essayists for December meeting: Drs. Clyde Brady, G. W. Moore and Smithfield Keffer. Dr. W. A. Berry, Ashland, became a member of the society.

Regular meetings the first Thursday in every month at 7:30 p. m., City Building, Ashland. All members are earnestly requested to be present at the December meeting—much important business to be transacted. All physicians are invited to become members.

SMITHFIELD KEFFER, Sec'y.

KENTUCKY NOTES.

Dr. W. H. Wathen has tendered his resignation as Medical Referee for Louisville and Jefferson County. Dr. Wm. Bailey has been named by the State Board of Health to succeed Dr. Wathen as Referee.

* * * *

Dr. James B. Bullitt, who was confined to the house for a week on account of injuries received on election day, November 7th, is again attending his practice.

ROSTER OF COUNTY SOCIETIES.

County.	President.	Secretary	No. m'brs 1905
Adair - Russell	J. S. Rowe, Jamestown		4
Allen	C. W. Holland, Halifax	A. L. Wagoner, Scottsville	10
Anderson	J. L. Toll, Lawrenceburg	Geo. E. Davis, Lawrenceburg	12
Ballard	J. D. Rollings, Hinkleville	Jno. C. Boone, Wickliffe	11
Barren	J. J. Jepson, Glasgow	F. J. Taylor, Glasgow	21
Bath	J. W. Rutherford, Sharpsburg	F. P. Gudgell, Owingsville	12
Bell	W. J. Hodges, Pineville	C. K. Brosheer, Middlesboro	9
Boone	J. M. Grant, Petersburg	W. O. Rouse, Burlington	11
Bourbon	A. H. Keller, Ruddells Mills	C. G. Daugherty, Paris	24
Boyd	Geo. W. Moore, Ashland	Smithfield Keffer, Ashland	18
Boyle	J. R. Cowan, Danville	Spurgeon Cheek, Danville	14
Bracken	D Wallin, Brooksville	V. E. Smith, Brooksville	4
Breathitt	J. M. Kash, Jackson	Jas. P. Boggs, Jackson	3
Breckinridge	J. B. Frymire, Preston	J. E. Kincheloe, Hardinsburg	15
Bullitt	S. W. Bates, Shepherdsville	G. W. Kirk, Shepherdsville	7
Butler	P. E. James, Morgantown	A. E. Gardner, Morgantown	13
Caldwell-Lyon.	W. G. Kinsolving, Dulaney	R. W. Ogilvie, Princeton	16
Calloway	E. T. Dunaway, Murray	W. H. Graves, Murray	19
Campbell - Kenton	J. J. Youtsey, Newport	F. A. Stine, Newport	52
Carlisle	J. M. Peck, Arlington	T. D. Bugg, Bardwell	15
Carroll	N. C. Brown, Ghent	F. M. Gaines, Carrollton	11
Casey	I. S. Wesley, Liberty	D S. Floyd, Humphrey	10
Christian	C. B. Petrie, Hopkinsville	J. W. Harned, Hopkinsville	24
Clark	A. L. Goodwin, Wade's Mill	Howard Lyon, Winchester	14
Cumberland		R. L. Richardson, Watervivw	13
Daviess	J. D. Russell, Yelvington	J. J. Rodman, Owensboro	59
Edmonson	(see Warren County)		
Estill	C. Marcum, Miller's Creek	J. S. Turner, Irvine	8
Fayette	W. C. Bullock, Lexington	W. H. Smith, Lexington	43
Fleming	J. P. Huff, Goddards	A. S. Robertson, Flemingsburg	15
Franklin	W. Montfort, Woodlake	W. Emmett Allen, Frankfort	18
Fulton	W. W. Gourley, Fulton	S. Cohen, Fulton	4
Garrard	J. M. Acton, Lancaster	J. B. Kinnaird, Lancaster	8
Grant	C. D. O'Hara, Williamstown	J. G. Renaker, Dry Ridge	13
Graves	J. D. Pryor, Mayfield	M. W. Rozzell, Mayfield	18
Green	W. J. Resin, Summerville	Basil M. Taylor, Greensburg	7
Hardin	J. C. Mobley, Elizabethtown	J. M. English, Elizabethtown	17
Harrison	B. G. Gillespie, Berry	J. M. Rees, Cynthiana	20
Hart	C. J. Walton, Munfordville	J. J. Adams, Munfordville	14
Henderson	H. W. Edwards, Henderson	Silas Griffin, Henderson	28
Henry	J. C. Cassity, Eminence	Jno. P. Nuttall, New Castle	13
Hickman	Chas. Hunt, Bugg	E. B. McMorries, Clinton	16

ROSTER OF COTNTY SOCIETIES.—CONTINUED.

County.	President.	Secretary.	No. m'bers 1905.
Hopkins	T. W. Gardner, Madisonville	R. W. Long, Madisonville	8
Jefferson	Wm. Cheatham, Louisville	E. O. Witherspoon, Louisville	139
Jessamine	T. R. Welch, Nicholasville	J. A. VanArsdell, Nicholasville	8
Knox ..	Chas. L. Heath, Lindsay	G. H. Albright, Barbourville	12
LaRue ..	David W. Gaddie, Hodgenville	W. E. Rodman, Hodgenville	9
Laurel	H. S. Pitman, East Bernstadt	G. S. Brock, Bush	8
Lewis	L. A. Grimes, Concord	A. F. Hill, Vanceburg	3
Lincoln	Hugh Reid, Stanford	L. B. Cook, Stanford	12
Logan	M. R. Perry, Russellville	J. K. W. Piper, Russellville	19
Lyon	(see Caldwell-Lyon .....	.....	.....
McCracken	Randolph, C. Gore, Paducah	Jas. T. Reddick, Paducah	43
McLean	H. J. Beard, Livermore	J. H. Harrison, Livermore	5
Madison	C. H. Vaught, Richmond	Murison Dunn, Richmond	20
Marion	R. R. Hourrigan, Penick	R. C. McChord, Lebanon	23
Marshall	J. A. Jones, Altona	V. A. Stilley, Benton	13
Meade	B. R. Walker, Garnettsville	J. R. Dink, Brandenburg	10
Mercer	Bishop Wash, Harrodsburg	W. D. Powell, Harrodsburg	13
Metcalf	John A. Yates, Edmonton	Hugh R. Vanzant, Edmonton	11
Monroe	R. F. Duncan, Tompkinsville	E. E. Palmore, Strobe	13
Montgomery	W. T. Willis, Mt. Sterling	J. A. Shirley, Mt. Sterling	10
Muhlenberg	J. T. Woodburn, Central City	S. T. Taylor, Central City	15
Nelson	J. B. Overall, Solitude	Hugh D. Rodman, Bardstown	15
Nicholas .....	.....	.....	5
Oldham	J. H. Speer, Brownsboro	R. B. Pryor, Brownsboro	11
Owen	J. C. B. Foster, Monterey	W. G. Birchett, Owenton	13
Owsley	S. G. Sanders, Booneville	A. M. Glass, Booneville	4
Pendleton .....	.....	J. E. Wilson, Falmouth	2
Powell	C. D. Mansfield, Stanton	I. W. Johnson, Stanton	10
Pulaski	J. M. Owens, Somerset	A. W. Cain, Somerset	19
Robertson	J. B. Wood, Mt. Olivet	W. S. Chandler, Mt. Olivet	3
Rockcastle	Percy Benton, Brodhead	S. C. Davis, Mt. Vernon	10
Rowan .....	.....	.....	3
Russell	(see Adair County) .....	.....	.....
Scott	T. H. Daugherty, Sadieville	Jno. E. Pack, Georgetown	19
Shelby	T. E. Bland, Shelbyville	S. L. Beard, Shelbyville	17
Simpson	M. M. Moss, Franklin	G. R. Jones, Franklin	8
Spencer	Overton Conrad, Wilsonville	E. T. McMahan, Taylorsville	5
Taylor	C. V. Hieston, Merrimac	J. B. Buchanan, Campbellsville	9
Todd	R. V. Ferguson, Hadensville	T. E. Bruce, Elkton	18
Trigg	J. G. White, Cerulean	Homer Blane, Cadiz	11
Trimble	S. K. Fisher, Bedford	L. G. Contri, Winona	7
Union	S. S. Amerson, Sullivan	R. H. C. Rhea, Morganfield	18
Warren - Edmondson	J. H. Blackburn, Bowling Green	F. D. Reardon, Bowling Green	39
Wayne ..	.....	J. F. Young, Monticello	7
Whitley ..	L. L. Brown, Mountain Ash	L. B. Croley, Williamsburg	13
Woodford ..	S. M. Worthington, Versailles	W. C. McCauley, Versailles	8

STATE BOARD EXAMINATION.

For license to practice medicine in the State of Kentucky, held at the Galt House in Louisville, Oct. 24 and 25th, 1905.

ANATOMY.

- 1.—Name the divisions of the intestines, giving the length of each division and describe one division.
- 2.—Describe one of the following arteries: the facial, the popliteal or the vertebral.
- 3.—Describe fully the elbow joint.
- 4.—What anatomical structures would be cut in an amputation at the juncture of the upper and middle third of the leg.
- 5.—Describe the circle of Willis.
- 6.—Describe the gall bladder and its ducts and those of the liver.
- 7.—Describe one of the following bones: The temporal bone, the sternum or the astragalus.
- 8.—Describe two of the following muscles: the quadriceps femoris, the biceps or the omohyoid.
- 9.—Describe the recurrent laryngeal nerve.
- 10.—Describe the minute anatomy of the kidney.

PHYSIOLOGY.

- 1.—What is osmosis?
- 2.—What are the functions of the liver and its secretions?
- 3.—What is the normal ratio of heart pulsation to respiration in a healthy adult?
- 4.—Describe and give the functions of the submaxillary gland.
- 5.—What is the function of the skin?
- 6.—Describe the circulation of the blood and tell what causes the movement of blood through the veins.
- 7.—What are the lymphatics, and what is their function?
- 8.—Of what is semen composed? Describe the vital element in it.
- 9.—Give the chemical and physiological composition of blood.
- 10.—What is the difference between voluntary and involuntary muscles?

CHEMISTRY.

- 1.—Define organic and inorganic chemistry.
- 2.—Give formula for nitric acid, sodium nitrite, sulphurous acid, alcohol.
- 3.—How determine specific gravity, reaction, presence of albumen and sugar in the urine?
- 4.—What is a disinfectant? Name some.
- 5.—What is the difference between analysis and synthesis?
- 6.—Define deliquescence, efflorescence and valence.
- 7.—How can you prove the presence of free iodine?
- 8.—Give the flame test for potassium and sodium.

9.—What is the chemical antidote of lead acetate poisoning? Explain the chemical action of this antidote.

10.—(a) What chemical antidote would you administer in a case of acute arsenical poisoning, and why? (b) How would you detect arsenic?

PATHOLOGY.

- 1.—Describe inflammation.
- 2.—Differentiate between sarcoma and carcinoma.
- 3.—Define metastases.
- 4.—Give the pathology of the different stages of acute lobar pneumonia.
- 6.—What is dermoid cyst?
- 7.—Give the etiology of acute miliary tuberculosis.
- 8.—How would you prepare and stain blood for the malarial parasite?
- 9.—What is the role of phagocytosis in disease?
- 10.—Give the pathology of cirrhosis of the liver.

BACTERIOLOGY.

- 1.—What is the cause of typhoid fever? Describe the germ; tell how to identify it.
- 2.—How is the antitoxin for diphtheria made?
- 3.—How would you stain and identify the gonococcus?
- 4.—How would you detect the bacillus of tuberculosis?
- 5.—What length of time and what temperature is required to sterilize surgical dressings exposed to moist heat? To dry heat?

OBSTETRICS.

- 1.—Define and describe menstruation and ovulation.
- 2.—Tell in detail how you would apply forceps, beginning with preparation of your patient and yourself.
- 3.—How would you diagnose and treat a recent laceration of the perineum?
- 4.—How would you diagnose and manage a case of prolapse of the cord?
- 5.—What are the symptoms and what the treatment of eclampsia?
- 6.—How would you do an "accouchement force" when the patient has had no pains?
- 7.—What are the indications for Caesarian Section and what for symphysiotomy?
- 8.—Give the best methods for diagnosing pregnancy.
- 9.—Describe the sutures and fontanelles of the foetal cranial vault. What is their diagnostic value during labor?
- 10.—How would you do a podalic version?

ETIOLOGY AND PHYSICAL DIAGNOSIS.

- 1.—What is the etiology of (a) lockjaw; (b) ophthalmia neonatorum and (c) puerperal septicaemia?
- 2.—What physical signs are recognized in the

second stage of acute labor pneumonia, and what methods are employed in detecting them?

- 3.—Describe the normal heart sounds.
- 4.—Describe the various heart murmurs and give their physical signs.
- 5.—Differentiate between acute miliary tuberculosis, typhoid and malarial fever.

SURGERY.

- 1.—Give the diagnosis and treatment of fistula in ano.
- 2.—In case of threatened death from chloroform anaesthesia, what would you do?
- 3.—(a) What is fracture? (b) Kinds of fractures, with examples? (c) How would you treat a simple fracture of the shaft of femur? (d) How would you diagnose between fracture of the surgical neck of the femur and dislocation of the hip joint?
- 4.—How would you diagnose osteomyelitis of the tibia, and how would you treat it?
- 5.—Give the cause, diagnosis and treatment of tetanus. How would you prevent it?
- 6.—Describe an inguinal hernia and how would you treat it for its radical cure?
- 7.—How would you diagnose and treat a fracture of the ribs?
- 8.—(a) What is a wound? (b) What is meant by immediate union? (c) By second intention? (d) How would you treat an infected, lacerated wound of the palm of the hand?
- 9.—How would you treat an ingrowing toe nail?
- 10.—How would you treat empyema?

GYNECOLOGY.

- 1.—What are the contra-indications to the use of the sound?
- 2.—What would you suspect in a woman of fifty who complained of slight continuous metorrhagia? How would you confirm your diagnosis and how would you treat her?
- 3.—What symptoms may arise from laceration of the cervix and how would you treat such laceration?
- 4.—Differentiate between ovarian cyst and ascites.
- 5.—Give diagnosis, prognosis and treatment of a tubal pregnancy which has ruptured into the broad ligament.
- 6.—Give the diagnosis, prognosis and treatment of an incomplete abortion.
- 7.—What is senile vaginitis, and how would you treat it?
- 8.—Give the various stages of prolapse of the uterus.
- 9.—Define (a) labia minora; (b) clitoris; (c) the fundus uteri; (d) corpus luteum; (e) Fallopian tube.
- 10.—What is sterility and what causes it?

OPHTHALMOLOGY.

- 1.—Diagnose and give treatment of glaucoma.
- 2.—Diagnose and give treatment of iritis.
- 3.—What is myopia and presbyopia? In either case when is treatment necessary and what?
- 4.—How would you detect a corneal ulcer?
- 5.—How would you detect color blindness?

OTOLOGY.

- 1.—Give symptoms of middle ear disease.
- 2.—What are the dangers to be expected in abscess of middle ear?
- 3.—Give symptoms of mastoid abscess.
- 4.—What are the symptoms of impacted cerumen and what treatment would you prescribe?
- 5.—In case of violence on the squamous portion of the temporal bone, with blood from the meatus, what would you consider involved?

MENTAL AND NERVOUS DISEASES.

- 1.—What are the diagnostic signs of paresis?
- 2.—What are the symptoms of a rupture of the middle meningeal artery?
- 3.—What nervous symptoms may be caused by hyperpyrexia?
- 4.—What are the effects of tertiary syphilis on the nervous system?
- 5.—How would you treat chronic lead poisoning?

HYGIENE.

- 1.—How would you prevent the spread of yellow fever?
- 2.—How would you manage a case of typhoid fever to prevent its spread?
- 3.—Differentiate between smallpox, chicken pox and measles, and how would you vaccinate a person?
- 4.—How would you advise a family to protect themselves from infection if one of their number should have consumption?
- 5.—How would you prevent the spread of gonorrhoeal ophthalmia from an infected to a sound eye?

MEDICAL JURISPRUDENCE.

- 1.—Define idiocy, imbecility and cretinism.
- 2.—What are the duties of a physician at a Coroner's inquest?
- 3.—State fully the symptoms and postmortem appearances in cases of poisoning by each: opium, strychnine and arsenic.
- 4.—In a medico legal sense what constitutes a dying declaration and what is necessary to make it evidence in a court of justice and how should it be taken?
- 5.—What is malpractice?

Report of Examinations for Licenses to Practice Medicine.

STATE BOARD OF HEALTH OF KENTUCKY.

Report of Examination Held at Louisville, Kentucky, October 25, 1905.

Number of Subjects Examined in..... 14

Total Number of Questions 120

Percentage Required to Pass..... 70
and not less than 60 in any one subject.

Written Examination?..... Yes

Total Number Examined..... 23

Number Passed..... 22

Number Failed..... 1

Name or Number of Applicant	School of Practice	COLLEGE	Year Grad.	Per Cent.	REMARKS
2	R	Medical College of the State of So. Carolina..	03	91	
31	R	Medical Department University of Baltimore..	05	89	
36	R	Atlanta College of Physicians and Surgeons..	05	89	
46	H	Hahnemann Medical College.....	03	87½	
41	R	Medical Department Vanderbilt.....	05	86	
33	R	Medical Department St. Louis University....	04	85	
49	R	Medical Department University of Georgetown	80	84	
1	R	Kentucky School of Medicine.....	05	84	
50	R	Illinois Medical College.....	05	84	(Colored)
34	R	Hospital College of Medicine (Ky.).....	05	80	
32	R	Med. Dept. Columbia University (N. Y.).....	04	79	
42	R	Central College of P. & S. of Indiana.....	05	78½	
30	R	Kentucky School of Medicine.....	97	78	
47	R	Medical College of Ohio.....	05	78	
44	R	Medical Department University Tennessee...	05	77	
43	R	Hospital College of Medicine (Ky.).....	05	77	
48	R	Medical Department University Louisville...	05	76	
29	R	Medical Department Vanderbilt.....	80	75	
37	E	Eclectic Medical Institute.....	05	73	
40	R	Medical Department University Tennessee...	05	70	
35	R	Hospital College of Medicine (Ky.).....	05	70	
38	R	Memphis Hospital Medical College.....	03	70	
		Failed			
39	R	Barnes Medical College.....	05	67	Failed in all but 3 branches

[Signed]

J. N. McCORMACK,

Date, November 28, 1905.

BOWLING GREEN, KY.

HOW TO KEEP THE BABY WELL IN HOT WEATHER. — The following circular has been prepared by Dr. Andrew Cairns, chief medical inspector of the Bureau of Health of Philadelphia, for wholesale distribution:

Nurse it.—Nothing equals mother's milk for a baby food. If you cannot nurse the baby, use fresh milk, which in hot weather has been boiled and prepared according to directions. Nurse the baby part of the time, if you cannot nurse it all the time. Do not give it condensed milk, or any prepared babies' food.

Feed or nurse it at regular intervals not more than once in three hours after it is six weeks old. Don't feed it simply because it cries. Decrease the amount of milk on very hot days. Too much food and too frequent feeding are among the commonest causes of sickness.

Bathe it daily.—The glands of the skin carry off nearly as much poisonous matter as the bowels. They both must be kept open in hot weather. Dry the skin well after bathing.

Air it.—Out of door air is necessary. Keep the head shaded from the direct sunlight. In hot weather take the baby out early in the morning before 9 o'clock, when it is cool, again late in the afternoon and early evening, but not late at night.

Keep it cool.—If it is bundled up too much in summer, it will become overheated. The more nearly naked it is the better, in extremely hot weather.

Keep it in a quiet place.—A baby's nerves are very sensitive. Continued noise sometimes causes sickness.

Give it water.—Between feedings give it water freely, especially in hot weather. Use only water that has been boiled.

Give no fruit to a baby less than a year old. In summer give no fruit to a baby less than two years old. Fruit kills many babies.

Give no solid food to a baby less than one year old. For the first year of life the food should be all milk. For the second year, chiefly milk.

Call your doctor, or, if you have none, in summer, notify the Bureau of Health, and a doctor will be sent immediately.

When baby has diarrhoea stop all food and give only barley water until the doctor comes.—*New York Medical Journal*, July 16, 1904.

A CASE OF MERALGIA PARAESTHETICA. — John E. Donlev states that meralgia paraesthetica is the name given to a peculiar syndrome appearing most commonly, though not exclusively in the distribution of the external cutaneous femoral nerve. In a large number of cases there are tingling and numbness, increasing in se-

verity as the leg is used. Some patients complain of heat, others of cold. Sometimes the lightest touch is unbearable. There is marked diminution of sensibility to pain, touch, and pressure. The etiology of the disease is obscure. The pathology is a mooted question. Strychniae sulphate seems worthy of trial in these cases, as its use has been followed by distinct improvement. Massage, followed by wrapping the limb in hot towels, is advisable. A mild, galvanic current supplements the above after a week. The limb should have complete rest. Counter irritation is harmful in these cases. Resection of the nerve in obstinate cases is advised.

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2nd. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See Collier's Weekly, Nov. 4, 1905.)

ACTINOMYCOSIS OF THE TONSILS — Jonathan Wright emphasizes the importance of examining microscopically absolutely all tissue removed from the nose and throat in the routine of either hospital or private practice. This case which the writer reports was a boy of twelve years, whose tonsils were removed. He still remains well. Microscopical examination showed the characteristic club-shaped rays of the actinomyces group. The infecting germ had evidently lodged in a tonsillar crypt. In a very large number of cases the tissue changes can be traced directly to a carious tooth cavity. The lower jaw is more often attacked than the upper. Iodide of sodium has a very favorable effect upon the lesions of actinomycosis.—*The American Journal of the Medical Sciences*.

Vaccination of School Children Sustained by Court of Appeals in New York State.—
Opinion of the court:

"The appellant claims that vaccination does not tend to prevent smallpox, but tends to bring about other diseases, and that it does much harm with no good. It must be conceded that some laymen, both learned and unlearned, and some physicians of great skill and repute, do not believe that vaccination is a preventive of smallpox. The common belief, however, is that it has a decided tendency to prevent the spread of this fearful disease and to render it less dangerous to those who contract it. While not accepted by all, it is accepted by the mass of the people as well as by most members of the medical profession. It has been general in our State, and in most civilized nations for generations. It is generally accepted in theory and generally applied in practice, both by the voluntary action of the people, and in obedience to the command of law. Nearly every State in the Union has statutes to encourage or directly or indirectly to require vaccination, and this is true of most nations of Europe. It is required in nearly all the armies and navies of the world. Vaccination has been compulsory in England since 1854, and the last act upon the subject, passed in 1898, requires every child born in England to be vaccinated within six months of its birth. It is compulsory, or is aided, encouraged, and to some extent compelled in the other European nations. It is compulsory in but few States and cities in this country, but it is countenanced or promoted in substantially all, and statutes requiring children to be vaccinated in order to attend the public schools have generally been sustained by the courts."

The opinion further states, that a common belief like common knowledge may be acted on by the legislature and courts without proof, and the fact that it is not universal is not controlling, for there is scarcely any belief that is accepted by every one, and what the people believe is for the common welfare must be accepted as for the common welfare. "While we do not decide and cannot decide that vaccination is a preventive for smallpox, we take judicial notice that this is the common belief, of the people of the State, and with this fact as a foundation, we hold that the statute in question is a health law, enacted in a reasonable and proper exercise of the police power." —*New York Medical Journal*, February 4, 1905.

SMALLPOX IN ARKANSAS. — On account of the mild form of the disease, as it has prevailed heretofore, vigorous measures have not in many localities been taken to eradicate it. This

has particularly been the case in several sections where the negro population is largely in excess of the white. The negroes, in most cases, have preferred to take the chances of a light case of smallpox rather than the risk of a sore arm from vaccination. In some sections the reappearance of smallpox annually with the coming of cold weather had come to be looked upon as rather an insignificant affair, and in a number of instances negroes in the eruptive stage of the disease have picked cotton, and even worked in the gins and presses, where cotton was made ready for the market, thus sending the contagion broadcast. On many plantations all sanitary precautions have been neglected, houses where the disease had prevailed in one year being occupied the following one by families wholly unprotected, either by previous attack or by vaccination. With the advent of cold weather last fall the smallpox appeared as usual, but it was soon apparent that the disease was decidedly more malignant than heretofore, the death rate being many times larger than in the previous recent outbreaks. — *Public Health and Marine Hospital Service Report*.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed in case any law or laws are enacted either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2nd. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See Collier's Weekly, Nov. 4, 1905.)

A meeting of all railway surgeons in Kentucky has been called at the Court-house in Lexington, December 1st, 1905, at 11 A. M., for the purpose of organizing an Association of Railway Surgeons in Kentucky.

KENTUCKY MEDICAL JOURNAL.

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION.

VOL. III.

LOUISVILLE, KY., JANUARY, 1906.

NO. 8.

ANNUAL ORATION IN SURGERY, KENTUCKY STATE MEDICAL AS- SOCIATION, LOUISVILLE, OCTOBER 19, 1905.

PRESENT STATUS OF GASTRIC SURGERY, WITH ESPECIAL REFERENCE TO THE TREATMENT OF CHRONIC ULCER.

By LOUIS FRANK, M. D., Louisville, Ky.

"The boldest suggestion ever made for stopping gastric hemorrhage is that of Rydygier, who advocates in cases where hemorrhage from an ulcer threatens to be fatal to cut down upon the stomach, search for the bleeding ulcer and then resect it. * * * Rydygier's suggestion seems extravagant and unwarrantable." (1)

This statement made to-day would seem remarkable and out of place, yet it is quoted from a system of medicine which is standard, though the above sentiment was uttered twenty years ago, two years before Von Mickulicz performed the first operation of this character, and before Roux of Lausanne successfully ligated the coronary artery for hemorrhage.—(2) Gross said in 1867, and it is just as applicable to-day, that, "The advances in our knowledge in medical science * * * are without parallel in any age. Never was the medical profession so busy and industrious, so zealous and enthusiastic, so honest and exact in its views and its results, as it is at the present moment. It would almost seem as if the millenium were actually at hand. Look where we may, progress, rapid and brilliant, nay absolutely bewildering, literally stares us in the face, and challenges our respect and admiration. One is almost ready to exclaim, "Behold all things are new—"! The age is proud of its knowledge.—(3)

Let us see what has been done in recent years in Gastric Surgery. Clinically those diseases for which the surgeon offers his aid to effect relief were never so thoroughly studied, so minutely described in their pathological details, in symptomatology, or in their dangers, or termination than was done by those two masters of the early decades of the last century, Cruveilhier and Rokitansky, and with the exception of the more recent work in blood and stomach analysis there has been nothing new in gastric ulcer since their day, and it remains to be seen whether these last

have really redounded to any practical good to the every-day worker. We will have occasion to refer to this again further in our paper.

The surgery of the stomach is a thing of recent date, so new, in fact, as to be within the memory of many of us. Suggestions were made early, but until the advent of asepsis the results were as a rule so uniformly disastrous as to deter physician, surgeon, and patient. The opening quotation reveals the surprise and contempt with which a suggestion of life saving surgery was met with as late as 1885.

The oldest operation on the stomach was done for the removal of foreign bodies, by Crolius in 1602 for removal of a knife, and a similar operation by Guenther in 1613. These were gastrotomies. (4) Though successful the operation met with little favor and as late as 1887 only thirteen cases had been reported.

Gastrotomy (4) was not done on man until 1839, when Sedillot did the first operation, though the result was unsuccessful. Thirty-five years later the first recovery took place after an operation by Sidney Jones, it being his third operation of this nature. The indications for the operation are limited; however, when these are present it is one that has proven of very high value and the results have been so uniformly gratifying that its status is firmly fixed as a lifesaving surgical procedure, in regard to the employment of which there is never the least quibble.

Of pylorodiosis, (4) first introduced by Loretta in 1882, and to which the name Loretta will always be associated, we can only say that it has not found the place among surgical operations that its originator had hoped for. The mortality and results from a curative standpoint in cases of benign obstruction was so much better after the operation of Heineke (Pyroplasty), first done in 1886, that Loretta's operation must have a very limited field.

Pylorotomy, (4) suggested by Merriën in 1810, performed first by Pean 1879, and by Rydygier in 1881, though unsuccessfully, was highly exploited by Billroth and Wolfier, and is one that has come to stay, and that occupies a place in gastro surgery second only to that of gastroenterostomy (4) which was first performed Sept. 27th, 1881 by Wolfier as an accessory to pylorotomy to procure rest for the stomach. His patient, one with cancer, lived four months. The results of Hahn with 15,

and of Doyan with 21 successive cases without a death did much to establish the operation on a firm basis. (4) These operations were done in cancer cases.

Directly in the line of gastric ulcer, with which I propose largely to deal in this paper, we find Rydygier had in 1881 done a pylorectomy for chronic ulcer on a female, age 33. The patient made a perfect recovery which was permanent. (5) Van Kleff, Czerny, and other operators soon followed in the successful treatment of gastric ulcer by pylorectomy and excision. In 1893 Doyan as an additional safeguard in the treatment of these cases introduced gastro-enterostomy for the rest thus secured, just as Wolfler had done for carcinoma. Since these "pioneer days" great activity has been manifested in the treatment of simple and malignant diseases of the stomach. Gastric ulcer and its complications and its sequellae especially, have received the attention and operative skill of Czerny, Durivier, Monod, Kuster, Novaro, Triconi, Kussmaul, Moynihan, Robson, Mayo, and many lesser lights.

In the treatment of cancer of the stomach we are at once confronted with the proposition—Is the disease removable?—If not, can anything be done to prolong the patient's life, or to relieve starvation and pain from obstruction?

Schlatter (6) has successfully removed the entire stomach from a female, doing an oesophago-enterostomy. Results showed vicarious action of the bowel for all gastric functions, this proposition of substitution of intestine for stomach having been the greatest difficulty in the consideration of the operation. The bowel was in this case observed to have fully compensated by a process of gradual dilatation. Bernays of St. Louis, Richardson of Boston, and a few others have reported cases of complete gastrectomy. Such extensive operation should be necessary in only the fewest number of cases. In by far the greater number should we be able to eradicate the disease with any degree of certainty, it can be done by a partial gastrectomy, or better still by pylorectomy. This would mean that the disease should be operated earlier, and just here is where we meet our first obstacle. We believe this can, to a great measure, be overcome by earlier diagnosis. As stated, we believe that entirely too much reliance has been placed in chemical and other analysis of stomach contents, and we may add that not sufficient import is given the clinical history and aspect of the case. We are placing too great reliance upon our laboratory colleagues (for whom I have the highest regard) to the utter exclusion of our practical diagnostic ability.

In waiting for laboratory confirmation we

may lose much valuable time, and I would suggest as a much more safe proposition early exploratory incision in doubtful cases where there is clinical suspicion of cancer even though unconfirmed by chemic and other examinations.

And another thing, do not believe the case inoperable because there may be a tumor present. A movable tumor of the pylorus, cancerous in character, is, as Mayo (7) has shown, of ten susceptible of total removal, and is even at times a favorable indication. Clinical experience has shown that the dictum of tumor meaning inoperable disease is not true, and it will not hold.

When we bear in mind the disease for which we are operating, its unavoidable fatal ending if left alone, we will not agree that these procedures for relief have a high death rate, too high to recommend to our patients. The mortality in 41 cases operated by Mayo is about 17 per cent.; in their last 11 cases there was no death.

Considering all these things, i. e., the length of time and the men who have been doing this work, its excellent results in the class of cases applied to, we feel sure that the operation should occupy a more prominent place and that it should and will achieve a surgical position.

Many will doubtless say—But our patients will not submit thus early to an operation where the diagnosis may be uncertain. We answer, as we do concerning the surgery for gastric ulcer, aye for appendicitis or gall stones.—It is not the patient who refuses to submit, but the family physician who refuses not only to concur, but counsels against the surgeon's advice, as being possibly unrequired or experimental or for some equally cogent (?) reason. The family physician must co-operate with the surgeon, and should realize that the surgeon has no ulterior motive in his advocacy of surgical principles, but that like him it is the welfare of the patient only that he has in mind. 'Tis only within the past fortnight that a friend of mine operated a malignant breast tumor which had been treated for two years by a capable and reputable practitioner by a salve. I believe this practitioner knew better, because I am sure he could make a diagnosis. If he could not he should have had a surgeon to see his patient: if he knew better, the operation should have been done 18 months or two years ago. Shame be it for me to say that here in Louisville, yes in the State of Kentucky, patients are dying daily with appendicitis, with strangulated hernia, and all, so the notices say, after an illness of five or six days. What does this mean—why is it? Very recently I heard an eminent surgeon say, and he was corroborated by others, that in his city there had not been a

death from strangulated hernia for six or eight years, and that the doctors never let them go so long, that his town's physicians were better educated. As I say, gentlemen, it is not the patient, it is too often yourselves who delay. "Deferred too long" might be put as the cause of many a death.

Cancer is essentially a disease that should be removed even upon suspicion, and as with breast tumors, so with gastric tumors or disease. Just as soon as symptoms present showing the least obstruction, or which might be in any way interpreted as from obstruction, just so soon should we have a large suspicion of cancer and if unable to very shortly absolutely satisfy ourselves as to the benignity of the symptoms an exploration should be advised.

That a perfect *restitutio ad integrum* occurs after pylorotomy has been shown beyond a doubt. In a case examined by Maresch (8) a pylorotomy had been done more than two years previously. Pylorus was not converted into a thickened cicatricial tube, but in region of the sphincter there was a marked thickening of the remaining muscular tissues, compensating completely for the removed portion. This compensation or substitution of function seems quite marked in the digestive tract, as was also shown in Schlatter's case.

Rodman (9) has recently again brought forward the operation for certain cases of gastric ulcer as being better suited than gastro-enterostomy, and when we consider the results which occasionally succeed upon the latter we would again say that this procedure should occupy a more prominent place in surgery.

Saupault (10) reports two cases in detail, and refers to twelve others which he had referred to the surgeon for pylorotomy. These patients had hyperchlorhydria and gastrorrhoea without stasis. All had pathological alterations about the pylorus, but were cured completely after the operation, some having remained well after four or five years. Bloodgood (11) also reports a case of resection for early ulcer and advocates complete resection in cases of indurated tumor, freely movable or only slightly adherent. Permanent relief follows in simple ulceration. The absence of vicious circle, of peptic jejunal ulcer, of regurgitation, the complete restoration of function after resection, the removal of possible scar tissue, which may be transformed into malignant tissue, should be sufficient reason for a careful consideration of the operation in selected cases notwithstanding the slightly higher death rate. We believe the good achieved in these certain indicated instances more than counter-balances the possible increased risk.

The consensus of opinion seems, however, to be that gastric ulcer, chronic, and its sequelae, excepting perforation, are best treated by a properly performed anastomosis between the stomach and the jejunum, the operation known as gastro-enterostomy, thus shortcircuiting the stomach contents around pyloric obstructions or ulcers, and draining the viscus of its contents more quickly, giving rest and promoting healing of abraded or bleeding areas. The operation was first suggested by Nicoladoni in 1880 and first performed by Wolfier, who united the jejunum to the anterior stomach wall on Sept. 27th, 1881, the patient surviving four months. Wolfier's operation was succeeded by that of Von Haecker, who advised and did the posterior anastomosis, which in some modification is the one generally carried out to-day.

Just now gastric surgery for the relief of ulcer and its sequelae and complications occupies the center of the surgical stage, so it will not be amiss if I devote the remainder of my time to a consideration of this subject and the treatment which has been advocated and is being carried out in its various phases. I am glad and congratulate you, Fellows of the Society, that you are to hear a symposium of papers on this subject, and that it has been given a prominent place for discussion on the programme. May I request, during this discussion, expressions from those who differ with me in my opinion, and I am sure that there are some, and may be many medical men who will coincide with my views, though I am equally certain that the surgeons here are a unit upon this question. May our discussion be fruitful of good, is my wish, for it is only by thrashing that the wheat is separated from the chaff, and only by repeated blows of the hammer that the nail is "clinched home." I doubt now that we will wage many wordy battles over some of this ground, but, just as some of it has been already won, so we hope to convince you, as we did over the appendix, and gall bladder and pus tubes, that there is a time in the treatment of gastric ulcer when the surgeon must be called.

Seven years ago, comparatively early in the history of gastric surgery, Hydenreich (12) insisted on the necessity of calling in the aid of surgery in dealing with obstinate gastric ulcer, stating that gastro-enterostomy offered less dangers than the disease itself. His present knowledge confirms his views. With the advance of surgical technique the mortality from gastro-enterostomy has diminished to such an extent as to bring the operation within the reach of comparative safety, in fact, the danger from an operation in skilled hands should be only 5 per cent., which is quite small when compared with the dangers involved

in ulceration of the stomach treated by internal and general therapeutics (20 to 50 per cent. according to various authorities.) In the majority of cases of relapsing or intractable gastric ulcer, surgical treatment is the only satisfactory method of procedure (13).

Deaver (14) recommends the operation for the complications and sequellae of gastric ulcer, stating that the chief indication for the operation exists in all lesions of the stomach where the gastric contents are not evacuated, whether the retention be due to benign mechanical obstruction, to an inflamed or ulcerated pylorus, or to atony of the gastric muscle.

Let us stop a moment and see what are the complications and sequellae of ulcer which may require attention and consider them *secritim*. Also let us ask, — When does an ulcer demand surgical interference? Should it be treated medically, and if so, for how long?

This disease is liable to two very serious accidents; namely, perforation and hemorrhage. Among the complications and sequellae which may require interference are obstruction from contraction of cicatrix about pylorus, hour-glass stomach, muscular atony or motor insufficiency from contractures or adhesions, perigastric adhesions, abscess formations and fistulous communications. For fear that as a surgeon my indications may be not sufficiently clear or possibly too radical, I would quote from Leube (15) on the "Surgical Treatment of Gastric Ulcer." I use Leube's table of indications because he has been so frequently cited by some of our medical friends as opposed to surgical aid and as being able to cure 98 or more per cent. of his cases by internal medication.

He says that,

I. In gastric hemorrhage surgical interference is (a) *indicated*, in uncontrollable hemorrhage repeated at short intervals, especially when combined with gastrectasis.

(b) *Contra-indicated* in a single profuse gastric hemorrhage (c) *Relatively indicated* in frequent repetition of profuse gastric hemorrhage.

II. In severe pain, continued vomiting and subsequent uncontrollable inanition, gastro-enterostomy is relatively indicated, but in such cases only where prolonged strict internal treatment of the ulcer has been given a trial and where long continued absolute rest of the stomach has been secured by rectal alimentation and has remained effectual.

III. In perigastritis, in adhesions of the stomach and adjacent parts, in subphrenic and other peritoneal abscesses, surgical interference is

(a) positively indicated in abscess arising

from the ulcer and in palpable inflammatory thickening and infiltrations of the stomach having more or less similarity with tumors. (b) Not indicated (or exceptionally indirectly indicated after absolute exhaustion of internal therapeutics) in cases where adhesion of the stomach to its surroundings seems possible from the clinical symptoms, but where they cannot be demonstrated by palpation.

IV. In perforation of the stomach into the abdominal cavity operation is positively indicated, and should be performed as early as possible, waiting for the initial shock to pass over, but within the first ten hours after perforation has occurred. In threatened perforation operation is contra-indicated, the indication here being, not for surgical interference of any kind, but for opium and total abstinence from food.

Mikulicz considers the dangers of life as probably greater from an open ulcer than from surgical interference, which he believes justifiable in all cases where internal treatment has proved unavailing. He gives as the general indications for surgical intervention:

I. Phenomena directly or indirectly hostile to life (frequent hemorrhage — progressive emaciation—beginning suppurative peritonitis—suspected carcinoma.)

II. Absent or transitory results from methodical and repeatedly resumed internal treatment: the patient's general condition and working capacity being seriously disturbed by pain, dyspepsia and vomiting.

As to *perforation*, there seems to be no longer the least shadow of a doubt as to what is the best line of treatment to follow. All authorities are agreed that the only hope practically of saving the life of the patient is immediate operation and suture of the perforating ulcer with suitable toilette of the peritoneum to take care of the infection. So many successful cases have been reported by Scudder (16), Guibal (17), Goodwin (18), Howitt (19), Gross (20), Robson (21), Moynihan (22), and others that it would be criminal to treat such a case in any other way than by operation.

Gross (20) in a monograph extending over the previous year gives a complete survey of the literature and a summary of the details of 405 reported cases.

Granting then the imperative demand for operation in perforation, its recognition is not always an easy matter. It may be mistaken for appendicitis, gall-bladder disease, pancreatitis or any other acute local peritoneal inflammation. The risk of operation, however, is definite, the hazard of delay is immeasurable

Diagnosis is more difficult in the case of the subacute or chronic ulcer which perforates slowly, resulting in perigastritis without pus, or acute symptoms, or in abscess, omental or sub-diaphragmatic. These latter may be so slow in their development as to be entirely over-looked until the abscess has existed for some time and quite a quantity of pus has been formed. It is often too late to save the patient by any plan of treatment. In acute perforation, on the other hand, recognition should be early and the good to be accomplished is in direct proportion to the early diagnosis. The symptoms are always marked and indicate grave intra-abdominal trouble and in early cases, doubtful or clear, demand immediate operation.

"The immediate symptoms of acute perforation are first, sudden agonizing, overwhelming pain in the region of the stomach, sometimes tearing in character, often with the sensation of something having given way. This pain is frequently so intolerable that the patient falls to the ground and even may become unconscious. * * * The pain rapidly spreads, following the gastric contents to other parts of the peritoneal cavity. If the perforation be near the pylorus or in the duodenum, the stomach contents flow over the hillock of the right transverse mesocolon into the right kidney pouch, and from there into the right iliac fossa, which accounts for the fact that many of these cases are diagnosed as appendicitis.

Rigidity and tenderness of the abdomen soon follow, together with profound collapse. The absence of liver dullness is a symptom upon which some authors place considerable reliance, but if the stomach does not contain considerable gas at the time of the perforation, the liver dullness will not be changed" (21). Great reliance may be placed on the board-like rigidity which is present.

We may then say of the surgical treatment of that complication, in which before 1894 we were helpless, or what we did was harmful, that at the present time the omission of such treatment would constitute criminal negligence. Without it the death rate exceeds 95 per cent., with it the prognosis is influenced by the timeliness of diagnosis and operation. Individual observers vary as to the advisability of waiting for the initial shock to pass over before operating. However, the general trend of opinion is against all unavoidable delay. The chances of recovery are reduced by more than one-half where surgery is called upon more than twelve hours after perforation. The dexterity of the surgeon must be preceded and equaled by the diagnostic skill of the physician.

Points to Be Considered in Surgical Interference.—Prevention of delay, avoidance of

morphine, determination of nature of the last meal, and of interval between it and the occurrence of perforation, position of patient at the time of perforation (the erect attitude limits to some extent the passage of gastric contents into the peritoneal cavity).

Excision of the ulcer is not generally attempted, on account of the risk of hemorrhage and increased shock from prolongation of the operation. Partial excision and removal have been carried out to meet special requirements.

Usually the opening is closed by insertion of sutures, a continuous suture taking in all the coats of the stomach being the one most commonly employed, buried afterwards by a row of Lembert sutures. The treatment of the ulcer itself is succeeded by careful cleansing of the peritoneal cavity and drainage.

Ulceration of the stomach or duodenum associated with bleeding, acute or chronic, demands *surgical treatment* for two reasons:

I. Arrest of the hemorrhage.

II. Cure of the causative ulceration.

Perforation and hemorrhage are liable to occur even in the mildest cases of gastric ulcer, and with suddenness from accidental rupture, that the patient's safety stands in direct ratio to the timeliness and promptness of surgical interference. Palliative methods are uncertain not only, but a source of positive danger, hemorrhage from the stomach being a very frequent and very fatal complication of gastric ulcer. From the surgical point of view, exact diagnosis concerning the location of the ulcer and presumably the hemorrhage, is important and valuable for the determination of general treatment and operative procedures.

The first operation for hemorrhage from gastric ulcer was performed by Mikulicz in 1889. Roux operated successfully in a case of ulcer with hemorrhage from the coronary artery, excising the ulcer and ligaturing both ends of the artery.

According to Moynihan, operative intervention is *hazardous* in *hemorrhage from gastric ulcer*. On the other hand, a continued bleeding will, in certain cases, inevitably result in death. Two plans may be followed in dealing with gastric hemorrhage.

(1) Search for the ulcer, or ulcers, and direct management by excision, ligation, cauterization, etc.

(2) Indirect management of the hemorrhage by performing gastro-enterostomy as speedily as possible. Whilst the former method is the more rational and desirable, it is not always feasible (excision of the ulcer, or direct treatment of the bleeding point may be impossible) and the performance of gastro-enterostomy is then necessarily indicated. In all of the author's cases, gastro-enterostomy led to an in-

stantaneous cessation of the bleeding and to the speedy and complete healing of the ulcer. Arrest of the hemorrhage proved to be perfect and permanent.

In the experience of others, hemorrhage has been observed to recur after gastro-enterostomy leading to a fatal termination.

Kocher, Quenn and Peterson report cases of this kind. For the bad results in certain other cases, Movnihan holds a Murphy button, which had passed into the stomach, as responsible, rather than the gastro-enterostomy. The cases in which gastro-enterostomy has failed to arrest the hemorrhage are few, and in some of these a perfect anastomosis may not have been secured.

The safest course, and the procedure of election, is to determine and secure the bleeding first, whenever possible with subsequent recourse to gastro-enterostomy. In addition to the performance of this operation, Rutkowski and Witzel have suggested the advisability of gastrotomy, ensuring complete rest to the stomach for a period of six or eight weeks, without impairing the nutrition of the patient. In some cases, gastro-enterostomy with jejunostomy may be performed. This combination is considered by Mikulicz as the operation of the future, and is at the present time habitually performed in Germany.

The following case illustrates intermittent hemorrhage in chronic gastric ulcer. The patient, a female, aet. 28, had a sudden attack of profuse bleeding from the stomach, in May 1898. She was in bed for six weeks, and during the eighteen following months she suffered from constant dyspepsia, with occasional vomiting and obstinate constipation. Then her health remained fairly good for six months, during which time her digestion improved considerably, until severe digestive disturbances developed in April 1900, with recurrence of a profuse hemorrhage. A six months' course of treatment secured much benefit, but a third attack of haematemesis with syncope occurred in January 1902. She remained in bed for four weeks at this time, and in September, 1902, had another equally severe attack of haematemesis. Constant treatment until January 1903 resulted in very slight improvement. Anaemia had been present and prominent since April 1900.

Surgical interference had favorable results. A large ulcer was found in the stomach, and another in the duodenum. The operation was a gastro-enterostomy.

Gastrectasis.—The indications (2) in the various forms of *gastrectasis* are for *surgical treatment* whenever lavage and internal medication do not promptly accomplish definite and satisfactory improvement. The authorities strongly advise gastro-enterostomy in di-

latation of the stomach which fails to yield to general treatment, the operation being much more certain than pyloroplasty or pylorodiosis, without being attended with greater risk.

In the severe form of idiopathic acute dilatation of the stomach, gastrotomy may become the operation of necessity for opening and draining the stomach or continuous drainage into the intestines might be secured by means of gastro-enterostomy which has though never been attempted in practice.

In atonic dilatation of the stomach, gastro-enterostomy may meet the indications, whilst eventually the operations of gastrorrhaphy or gastro-plication may prove the ideal surgical procedure for a certain number of cases without any form of mechanical obstruction.

Where gastrectasis is secondary to adhesions or stricture of the pylorus, gastrolysis or gastro-enterostomy, is called for respectively Cramer (22) recommends gastro-enterostomy and dilatation of the stomach for benign stenosis of the pylorus, especially in the high degrees, the operation to be performed at an early date to avoid loss of time by internal treatment. He advises operation in every case that shows no improvement after four weeks of rational diet and gastric lavage.

Pyloric Stenosis.—Waterhouse (23) advocates gastro-enterostomy for the cure of gastric ulcer not amenable to medical treatment after six months' perseverance. The signs and symptoms of progressive or persistent ulceration (repeated vomiting, hemorrhage, pain, anaemia, marked dyspepsia, hyperacidity, headache, emaciation) indicate gastro-enterostomy as the only procedure of use for the relief of pyloric stenosis, with or without gastric dilatation. Waterhouse has performed 31 gastro-enterostomies for chronic gastric ulcer and pyloric stenosis, with a mortality of 6.45 per cent. One death resulted from profuse hemorrhage, three hours after gastro-enterostomy had been performed for repeated hemorrhage from gastric ulcer. Three ulcers were found post mortem, from one of which (not discovered at the time of the operation) the fatal hemorrhage had taken place. Another patient died from exhaustion, the operation in this case having been performed upon a practically moribund individual.

Disturbances of Motility.—The indications are furnished by the disturbances of motility due to the presence of the ulcer, such as cicatricial stenosis of the pylorus, stenotic ulcer, peri gastritis, and pyloro-spasm. The last named condition has been distinctly observed by Fick (24) in one case, after opening the peritoneal cavity. The entire pre-pyloric portion which presented in the wound, during 1 and 1-2 minutes in such constant and powerful contraction that the stomach bulged out

of the incision. The pylorus was demonstrated as a hard, roundish tumor, which disappeared with the contraction of the gastric wall. It was possible to invaginate the stomach wall in such a way that the permeability of the pylorus was shown by the finger. With reference to special forms of surgical treatment, gastro-enterostomy is preferred to pyloroplasty. Curative effects are sometimes absent, notwithstanding perfect function of the gastric fistula, for the reason that the operation can have a direct influence upon the disturbance of motility only, rather than upon the hyperacidity and the ulcer itself. Dietetics improve the prognosis.

With any of these complications then it is seen that recovery cannot take place under medicinal treatment, it matters not how long this may be persisted in, and our duty to the patient becomes at once clear. With perforation and often with hemorrhages, notably those frequently repeated, the condition becomes very shortly one of such gravity that no human skill of avail. In the sequellae, such as hour glass contraction, pyloric obstruction, gastrectasis, perigastritis, the interference with proper stomach function is such that starvation, pain, anaemia soon reduce the patient to a condition that as a surgical subject he is most unfit, and the lowering of vitality is so great that recovery becomes a question of exceeding doubt. If our dyspeptics, our patients with chronic indigestion, were more closely investigated not only would they be spared many of the sequels of this condition, but timely operation would save much suffering and discomfort as well as enhance the possibilities of cure. We would not be understood as offering as a general proposition that every chronic gastric ulcer should be operated as soon as diagnosed, but we do believe and maintain that this eventuality should be borne in mind, and that after a thorough course of medical treatment, properly carried out in intelligent hands without improvement of decided character, this eventuality approaches a probability and should be so stated to the patient. Moullin (25) thinks that every chronic ulcer that persists in the stomach and causes severe pain and vomiting after *one* thorough trial of the ordinary method of treatment, should be exposed, examined and treated surgically. Medical treatment should not for the reasons stated be given a too protracted trial, and while it is a difficult matter to fix an absolute rule as to the time for an operation in a patient with ulcer, the length of time for such treatment should be within reasonable limits. A thorough course of treatment can be carried out in from six to eight weeks. Surgical technique has been brought to such a degree of perfection at the present day that operation should

be the method of election in the treatment of these patients after the above time under the care of a competent medical man. Patients in the final stages have not been accorded the benefits of modern surgical knowledge and skill, and as already stated, to the operator they do not offer a fair field for the demonstration of the efficiency of surgical interference.

The operation of choice in ulcer will be a properly-performed gastro-enterostomy. I will not consume your time by describing the technique of this procedure, but would refer you to the article in the Journal of the American Medical Association by Moynihan p. p. 1971 Vol. 43, the number for Dec. 24th, 1904, for the description of the operation as now carried out. The only modification of this operation which may be of value may be that of an additional entero-enterostomy to short-circuit the duodenum, but this will be rarely necessary if the anastomosis is made close to the ligament of Treitz and the long loop discarded. This is essentially the operation as carried out, not only by Moynihan, but by Mayo, Kocher, Czerny, Mikulicz, Von Eiselsberg, Korte, Kummel, Witzel, Hartman, Robson, and others.

We find Krause and at times Ochsner, who in his text book advises the anterior anastomosis, the only surgeons of note who are not doing the posterior operation exclusively in ulcer cases. The mortality from this operation is not great. In nearly 500 operations by Mayo the mortality was very low, in the last 61 cases only one (1) patient dying. From a very careful study of the literature, reviewing reports from all quarters and by many many operators, the mortality does not seem to exceed 15 per cent. and when we consider the condition of many of these patients, this to me is a most excellent showing. I am sure that with greater experience and with our excellent general profession educated as they should be in regard to this disease, we will be able to do what Moynihan (27) has done with his colleagues in medicine behind him, that is, report a mortality of two cases in 100 operations, and of these one death was in a case operated for profuse and recurrent hemorrhage, fourteen others with the same condition being saved. Certainly such statistics are as gratifying as any in the domain of surgery, and are far better than any statistics which have yet been present giving results after medical treatment. Even Leube's results are not better, as will be seen from the following, quoted from Henry. (28)

"Out of Leube's 556 cases only 12 died, i. e., 2.2 per cent. of which 2 died of perforation and 6 from uncontrollable hemorrhage. In 69 of the cases the method was not carried out in all its rigor, the patient leaving the hospital

before the cure was complete. This leaves 424 cases, of which 314 (74.1 per cent.) were cured; 93 (21.9 per cent.) were improved; 7 (1.6 per cent.) were not relieved; and 10 (2.4 per cent.) died," and these are the best results ever attained by any one, being the ones so often quoted to, or against the surgeon in his advocacy of the views I express. I might say, under surgical treatment these ten cases would have recovered.

A Few Words As to Diagnosis.—We know that gastric ulcer is by no means an infrequent disease; Robson estimated that from 5 to 10 per cent. of the community is afflicted with it. In contra-distinction to cancer, it occurs in the second and third decade in life, and is more frequent in the male, though acute ulcers occur in preponderance in the female. The diagnosis does not depend upon any one symptom, though the most important is tenderness and pain referred to Brinton's or Cruviellier's point. There is no doubt that many patients who have died from supposed malignant disease of the stomach have suffered from nothing but chronic ulceration. The induration which a persisting ulceration may cause is remarkable both for its extent and for its extraordinary mimicry of the appearance of malignant disease.

"Pain following from a few minutes to several hours after eating is a very constant symptom of gastric ulcer. It is variously described as gnawing, boring, or stinging, and corresponds to a point of tenderness about two inches below and a little to the left of the ensiform appendix. This is the so-called Brinton's point.

If the ulcer is in the posterior wall of the stomach, a similar point of tenderness is found a little to the left of the last two dorsal vertebrae, and this is known as Cruviellier's point. Now, these would be pathognomonic were they found only in gastric ulcer, but may be mistaken for cholecystitis. However, nearly always in the latter condition we find the pain radiating on a level with the tenth rib to a point at the angle of the right scapula. The pain of gastric ulcer has a further significance in that it marks a relatively advanced progress of the disease. Vomiting and nausea are frequently associated with ulcer, but as these conditions are common to functional gastric affections they are in no sense pathognomonic, but of considerable corroboratory value. The same may be said of hyperacidity, which condition is, however, said to occur in 90 per cent. of the gastric ulcers.

"Periodic attacks of headache is a symptom often complained of, and frequently indeed patients seek aid for the relief of this, when upon close inquiry we find it co-incidental with the gastric trouble." (29)

Inveterate dyspepsia is, in itself, an ample warrant for surgical treatment. Cases are within the experience of all in which prolonged medicinal treatment, most thoroughly and carefully supervised, proves ineffective, or, if temporarily beneficial, is powerless to ward off the recurrence of dyspepsia. In such cases, be the physical signs what they may, an operation is desirable, and abundant justification for it will almost always be found when the stomach comes to be examined.

There are few beings so abjectly miserable as those who are the victims of intractable dyspepsia. The mealtime, which should be a delight, is a time of despair and foreboding. The keen relish of good food, which the man in physical health should appreciate, is a joy unknown or long forgotten to the dyspeptic.

A patient who has misery written in every wrinkle of a thin, haggard face, who by reason of long suffering and bitter experience has felt compelled to abandon first one dish and then another, 'till fluids alone can be taken, and these not always with impunity; a patient, to say the truth, whose life becomes embittered by the pangs of a suffering which he must inflict upon himself, this patient will find, if a gastro-enterostomy be done for the chronic ulcer which is the source of all his trouble, that his return to health and appetite is at first almost beyond belief.

There is no operation in surgery which gives better results, which gives more complete satisfaction both to the patient and to his surgeon than gastro-enterostomy for chronic ulcer of the stomach.

I wish again to emphasize the fact that these dyspeptics should be considered as sufferers from chronic ulcer, and if we can rule out the appendix and gall bladder as causes it becomes almost a certainty. I am prepared to say from my experience in abdominal surgery and from my own observations and those of other surgeons, that all protracted gastric or intestinal disturbances are due to organic causes, and are absolutely never functional. This may be a bold assertion, but if you see, as I have and as all surgeons who observe do, how these cases get well after operation, notwithstanding at times dieting and years of stomach washing and medication, you would be convinced of the large amount of truth in this statement.

Before closing the question of diagnosis, I wish to pay my respects to the gastric analyst and to say that while I believe to the utmost in chemistry and microscopy there is no question of the utter futility of test-breakfasts and stomach washing in many of these cases. Too much reliance must not be placed in these analyses in excluding or diagnosing ulcer. The methods and standards are so varied and so diversified that it seems impossible to place a

proper estimate upon their value. Clinical diagnosis is what we want and more attention should be given to it, and when proper treatment fails to bring about complete, not partial, relief, view the case from the surgical aspect. After a failure of general treatment gastro-enterostomy must be considered and performed as the most reliable procedure for the treatment of gastric ulcer either chronic or acute.

If there is any question as to diagnosis we think that the exploratory incision should be freely resorted to as a legitimate and accredited operation.

Gentlemen, I cannot better conclude this paper than by use of this quotation from Mayland (30) "It is only within the last few years that the surgeon has come to the assistance of the physician in the treatment of certain diseases of the stomach; it may therefore be said that, reasoning in the light of the successful incursions made by surgery in other departments for the surgeon far beyond his present field of operation. It is not, I venture to think, too venturesome to predict that the day is not far distant when the stomach will be opened, explored and resutured for *purely diagnostic purposes* with as much freedom and security as is now done, for instance, in the case of the brain."

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GASTRIC ULCER—ITS CAUSES—THE PRE-ULCER STAGE.

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Round Ulcer, or Ulcer Pepticum, occurs in both the acute and chronic form. The tendency to healing is present in both forms—

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the acute leaving but little evidence — the chronic, often being responsible for grave changes in the size, form and position of the stomach. It is with the latter form, that this paper will deal.

Postmortem statistics vary greatly as to the frequency of ulcer; from one per cent. to thirteen per cent. of all deaths being attributed to this cause. Climatic conditions seem to play an important part in the frequency of this condition. According to the researches of Howard of Baltimore, the following figures gathered from the statistics of the leading hospitals of Europe and America give these results.

Per Cent.	Per Cent.
Edinburg 2.02	London 0.78
Berlin 1.33	New York 0.44
Boston 1.28	Baltimore 0.37
Montreal 0.92	Denver 0.12

As regards sex, females are more liable: the proportion varies: Reigel's analysis showed 126 cases in men to 134 in women. Habershon found 127 in women to 74 in men. Brinton believed that ulcer was twice as frequent in the female as in the male: Autopsy records vary even more. A study of the Berlin Charité record for years 1868-1882, showed that 27 per cent. of cases had an ulcer or the evidence of ulcers; of these, 128 cases were in men, 134 in women. In Copenhagen, 13 per cent. of the autopsies showed evidence of ulcer, but the records in Munich, Kiel and other places were lower. Fiedler, in an examination of 2,200 bodies, found ulcers or cicatrices in 20 per cent. of the female bodies and only 1.5 per cent. of the male. So far as age is concerned, we find more cases between the twentieth and fortieth year than in any other two decades, women seeming more liable during the third decade and men during the fourth. No particular age seems to be exempt, as ulcers have been reported in the early years of life and Welch, in his statistics collected from various hospitals, reports six cases occurring between the eightieth and ninetieth years, and one case over one hundred years.

Race: I have seen but one well marked case of ulcer in the negro and that in a woman of thirty who recovered. I am not aware that any statistics covering the negro race in this regard have been collected, but in a dispensary practice of ten years, where the proportion of negroes was quite large, I do not remember a single case. Case mentioned occurred in my private practice during the past year. Only two weeks ago another case, a colored man of twenty-eight, was the subject of a gastro-enterostomy and at the operation it was found that the dilatation of the stomach was due to the healing and con-

traction of an ulcer of the pylorus, symptoms having been present for eleven months previous to the operation.. Unfortunately, a small carcinoma was also found, but the patient is making a good recovery, pylorotomy not being attempted, owing to the extensive glandular involvement.

Nearly one-half of the ulcers have been found on the posterior wall; next in order comes the pyloric region and lesser curvature. According to Brinton, the anterior wall, cardia, and greater curvature, show less than ten per cent. of all cases.

The number of ulcers vary; as a rule we usually find but one, but cases where two were present are frequently known. In one case, reported by Lange and quoted by Ewald, such a large number were found that he was unable to count them. Ulcers vary greatly as to size and also as to involvement of the coats of the stomach. Occasionally, all the coats may be involved and the spleen, liver or pancreas form the base.

That ulcer is due to a necrosis of the gastric mucosa is admitted, but opinions vary as to the causation. Briefly stated, three influences must be recognized, viz: secretory, circulatory and hematic, but occasionally, we must consider the influence of a bacterial infection. A study of a large number of cases will show that hyperacidity is present in a decided proportion. That ulcer does occur, or rather is found with diminished acidity, must be admitted, but I have always believed that the view of Hemmeter explained this state of affairs; that owing to constant and continuous irritation from the presence of an ulcer, the glandular elements become exhausted, with diminution in the secretion of HCl and pepsin.

Hyperacidity, of itself, is seen commonly enough. Einhorn estimates that fully one-half of the cases of "indigestion" that we are called upon to treat are traced to this condition. And these cases may go on for a long while, with little or no treatment, and even under careful treatment, we have frequent relapses. To develop ulcer, we must not only have the hyperacidity, but also another factor, e. g., an injury to the mucosa produced by oyster or egg-shell bringing about a necrosis of the mucous membrane and the development of an acute ulcer.

Changes in the circulation of the gastric mucosa must play an important part in the production of ulcer. Experiments without number have been made on animals, typical ulcers have been produced in many instances and these usually tended to heal, healing only being delayed in those cases where anaemia had previously been produced.

Many observers and numerous experiments

confirm the opinion that we must look to the circulatory changes as predisposing, at least, to ulcer. Virchow's view, promulgated just half a century ago that thrombosis and embolism are often responsible, still holds an important place. Leube believes that anaemia and hyperacidity are both necessary to the production of ulcer. For many years the opinion has prevailed that chlorosis and anaemia were potent factors in the causation of ulcer. Certainly this class of cases seem more subject to the disease than those who are healthy. Futterer made many experiments and came to the conclusion that haemoglobinaemia is responsible, so far as the blood changes are concerned, and believes that ulcer can only form where there is a certain amount of haemoglobin wanting and must heal when the hemoglobin per cent. is increased to a normal amount.

The consensus of opinion agrees on the fact that a majority of the cases of chlorosis exhibit hyperacidity. Oswald, in Riegel's clinic, examined twenty-one patients, making eighty-four individual tests and found it present in 95 per cent. Investigation in 30 cases in Leube's clinic showed hyperacidity in 73 per cent. Cohnheim's views as set forth in his new work, just published, are of interest. He believes that including the infectious diseases, like tuberculosis and syphilis, there are two great etiological factors, the cause of which are both in the circulatory disturbances; on one side, chlorosis and menstrual disturbances at the beginning, or later, at the climacteric; on the other, the mechanical causes. He asserts that the etiology of most cases can be attributed to the group of *ulcera chloritica*, eventually *climacterica*, or to the group of mechanical causations of ulcer, *ulcera decubitalis*, and thinks that this will explain why the ulcers of the young usually occur in females and compression ulcers occur in men well up in years, whose work causes a chronic compression of the epigastrium. He lays stress upon the role the acute traumata play in producing gastric ulcer, believing that through the force displayed on the epigastrium, a necrosis of the mucous membrane is caused and a hematoma or, suggestion of the submucosa is formed and in both cases the gastric juice digests the weakened tissue. Only when the gastric mucosa is weakened from some other cause by means of inflammatory processes, at the time that a hyperacidity is present can the latter be held responsible for the formation of ulcer. There are proportionally few cases of gastric ulcer compared with the vast number of cases of hyperacidity, so e. g., an ulcer never follows a hyperacidity nervosa, no matter how many years it may exist.

What may be defined as the preulcer stage?

I take it to mean that time between the development of the general conditions that lead

to hyperacidity, together with the circulatory disturbances and blood changes that ultimately terminate in localized necrosis, and the development of an ulcer. I believe if careful attention is given to all cases where an injury to the epigastrium, is sustained, or where evidence of anaemia develops, much good will result. In such cases, regular gastric analyses, both after a test meal and a full meal, would be worthy of trial. At the same time, regular blood examinations should be made as advised by Futterer and should the value of HCl rise, or persistently stay above the normal, while the percentage of haemoglobin shows a constant reduction, I would regard both indications as danger signals and place my patient on such treatment that he would be enabled to avoid the pain and danger that attends the case, where later, from the collective symptoms, there would be no doubt of a fully developed ulcer.

I believe that a careful analysis of the cases of injury to the epigastrium alone will show that sufficient time elapses between the receipt of the injury and the development of the ulcer for these examinations to have been made.

I am indebted to my friend, Dr. Wm. Ackerman, of Milwaukee, for the abstract of Dr. Cohnheim's views on ulcer.

GASTRIC ULCER — ITS DIAGNOSIS AND TREATMENT.*

By SAMUEL E. WOODY, M. D., Louisville, Ky.

Improved methods of diagnosis and more hopeful methods of treatment have lately awakened so much interest in gastric ulcer, and so increased the number of recognized and cured cases, that this disease seems likely to rival appendicitis in brilliant exploitation. I must admit that of late I have been recognizing more cases than formerly.

DIAGNOSIS.

Many cases are so typical that diagnosis is obvious, easy and certain. In other cases the symptoms are so vague and confusing as to render diagnosis uncertain, mistaken or altogether unmade. There are, however, certain features which, if sought for and considered, will make diagnosis possible in almost every instance.

Gastric ulcer occurs quite rarely in this country, being only a small fraction of one per cent. of our cases and seems rarest in the South and West, especially in rural districts. Of the acute cases, nine-tenths are women between the ages of 15 and 25. It attacks mostly the anemic and imprudent, but usually spares those past middle life and is very rare in children.

Gastric pain is the most constant of all the

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symptoms and when it occurs habitually in an anemic young woman just after eating, is at least indicative of ulcer, especially if of an intense gnawing and burning character and confined to a certain spot in the epigastrium, usually a little below and to the left of the ensiform cartilage. I have never observed the corresponding dorsal pain-point mentioned by most observers as occurring a little to the left of the 10th to 12th dorsal vertebrae. The increase of the pain on taking coarse and irritating food, its subsidence after evacuation of the stomach and the prompt relief afforded by the administration of orthoform, point still more strongly to ulcer. I have seen somewhat similar gastritic sensitiveness in anemic girls and not due to ulcer, for, aside from the absence of certain diagnostic symptoms to be mentioned later, the pain did not present the peculiarities of ulcer and the trouble disappeared under iron, arsenic and liberal diet. Such cases seem to be a sort of neurosis or gastralgia. They bear no constant relation to the kind or condition of food taken; in fact the taking of food often gives instant relief. In such as are purely gastralgic the pain is rather relieved than aggravated by pressure. The gastric crises of spinal sclerosis have several times in my experience suggested gastric ulcer, but the eye symptoms, diminished reflexes and ataxis, together with the absence of certain characteristics of gastric ulcer, have always easily prevented mistake. A few years ago a case of severe epigastric pain coming on an anemic man and subsiding after severe retching and vomiting with some hematemesis, caused me to think it gastric ulcer, until a second attack and further study showed biliary colic and cholecystitis, a diagnosis confirmed in an operation by Dr. Cartledge. In cancer the pain is less characteristic, less influenced by food, often occurring at night and is a less prominent symptom. It is well, however, to remember that cancer and ulcer may co-exist; that cancer may develop in a pre-existing ulcer. Old people sometimes complain of an epigastric pain coming on soon after eating and aggravated by exercise. It presents none of the other features of gastric ulcer and is perhaps a neurosis and due to the arthrosclerosis of old age.

Localized tenderness at the main point is a fairly constant and very valuable symptom and also helps to locate the ulcer. If the ulcer is on the posterior wall of the stomach, the tenderness is less acute, especially on light pressure. When the inflammation, especially if near the pylorus, has thickened the tissues and caused adhesions to the adjacent structures, as the pancreas, palpation may reveal a tumor very suggestive of cancer. Local tenderness is apt to mislead unless one remembers

the possibility of inflammation of the liver, stomach, transverse colon, solar plexus and other structures in the epigastrium. Even pericarditis may give pain and tenderness in the epigastrium.

Hyperchlorhydria, or excess of hydrochloric acid in the fasting stomach, and increased gastric function are fairly constant, and very valuable symptoms of gastric ulcer. This serves to distinguish it from cancer and other diseases characterized by impaired secretion and function.

Vomiting, though a very constant symptom, is not very diagnostic; it occurs in so many other troubles, such as chronic gastritis, pregnancy, hysteria, uremia and cancer. In chronic gastritis the pain is diffused and rather a sense of heaviness and fulness about the stomach, and there are other evidences of gastric indigestion. In the vomiting of pregnancy, hysteria and uremia the pain of gastric ulcer is absent and the vomiting bears no constant relation to the taking of food. In cancer vomiting gives less relief and occurs oftenest when the cancer involves and obstructs the pylorus.

Hemorrhage is the most startling and perhaps characteristic symptom of gastric ulcer. But hematemesis does not always indicate gastric ulcer. The blood may have come into the stomach from above. It may be from severe retching and an oozing from a congested mucous membrane. It may occur spontaneously in certain infectious and septic diseases and in certain conditions of blood depravity, as purpura, hemophilia and splenic anemia. In more than one case I have had hematemesis to startle and puzzle me as between hepatic cirrhosis and gastric ulcer, occurring, as it did, in the early stages while the symptoms were as yet indefinite or insufficiently studied. But the absence of the other symptoms of gastric ulcer and the presence of the obstructive, digestive and nervous troubles of cirrhosis soon cleared up all doubt. When at all copious, it is seldom overlooked, for it gives the melena, or coffee-ground appearance, to the vomitus and the tarry blackness to the stools. Recently much has been said and written about those cases in which the hemorrhage is so slight as to escape ordinary inspection and to be evident only under chemical tests. It is to these chemical tests and closer studies that we owe most of our recent progress in gastric ulcer. It is claimed that chemical tests persistently applied to the vomit or feces will sooner or later show traces of blood in every case of latent ulcer and thus serve to differentiate them from cases of chlorosis, simple catarrh and hyperchlorhydria and other diseases unattended with hemorrhage. For the detection of these small quantities of altered blood-coloring matter, I have for many

years used the old guaiac and turpentine test. But of late I have employed Weber's modification of it:—To about 10 grams of the feces or vomit, I add 2 or 3 cc of glacial acetic acid and then shake it up with 2 or 3 cc of sulphuric ether, and allow the ether to separate. If blood be present the ether will be wine-colored with ecetate of hematin; and if a few drops of tincture of guaiac, followed by a few drops of hydrogen peroxide, be added to this ether, the hematin will act as an oxygen-carrier, and the precipitated guaiac will turn blue.. With the corresponding aloin test, I have had no experience. Of course the patient is allowed no meats or other blood-bearing food for several days previous.

The constant, and often copious, loss of blood in gastric ulcer soon produces a marked anemia; in fact Cabot says that in no disease, except pernicious anemia, does he find such low blood-counts.

TREATMENT.

The aim and end of medical effort is the patient's relief and cure. To attain this end we must: (1) Relieve urgent symptoms; (2) Secure as complete rest as practicable for the stomach; (3) Restrict the diet to the blandest food; (4) Administer such medicines as will improve the condition of the stomach and promote the healing of the ulcer, and, (5) failing in these, or facing such emergencies as desperate hemorrhage or perforation, call surgery to the rescue.

(1) Of the urgent symptoms, *pain* is usually the most urgent. If severe, a hypodermic or morphine is indicated. In a recent case I used chloretone with happy effect, though I first used orthoform in 8-grain doses (after Murdock, of Pittsburg) for the double purpose of relieving the pain and confirming my diagnosis. Orthoform, being practically insoluble in water, cannot reach and anesthetize the nerve-ends in a sound mucous membrane: so its relieving the pain argued the existence of an open ulcer. I also found mustard paper comforting; but I did not try poultices, for fear of hastening the ulceration. For the *vomiting* I used chipped ice and Vichy water with a little champagne. For the *hematremesis*, I did little more than apply an ice bag over the stomach and trust to the anodynes already employed and to rest in bed.

(2) For a cure, *rest of the stomach* is absolutely necessary. The motor function of the stomach grinds a gastric ulcer, as the sphincter ani does a fissure, and similarly prevents its healing. The stomach should be kept as quiet as possible and its motility should not be provoked, even by bodily movement. The patient should be kept in bed for three or six months, until the ulcer is assuredly healed. To

this, my last patient would not consent and changed doctors. But I am so sure he will yet have to come to it, that I am confidently awaiting the prodigal's return.

(3) The *diet* must be such as not to irritate the stomach and provoke its motility, and should consist of such articles as pass easily through the stomach and are digested mainly in the intestines, and should be supplemented by rectal feeding. By dividing the work between the stomach and rectum, we lessen the danger of their revolt and better assure the patient's nutrition, so necessary to any healing. By the stomach (being careful never to distend it) I begin with panopetone and alternate with a whey made by adding rennet or essence of pepsin to the warm milk and separating the curd. Later, I give peptonized milk, gradually adding gruel of dextrinized barley-flour and diminishing the peptonization until the patient is taking a mixture of equal parts of raw milk and barley gruel. To prevent curds and lessen the hyperacidity of the stomach, I add a tablespoonful of sacchrated lime water or 10 grains of sodium bicarbonate to the pint of milk. Da Costa gives ice cream, but Hare says frozen milk without so much sugar is better. By the rectum I administer three times a day six ounces of peptone liquid or thoroughly pancreatized milk-gruel. The return to solid food is to be made very slowly and tentatively, and the patient must for a long time be exceedingly careful of his diet.

(4) *Medicines* are of secondary importance and subsidiary to rest and diet. Fleiner's method is to give 10 grams of bismuth subnitrate in 200 grams of water on an empty stomach, while the patient remains in bed with hips elevated. 15 to 2 doses are claimed to be enough to effect a cure. To correct gastric acidity and hepatic and intestinal torpor, I prescribe the regular use of Carlsbad Water or the artificial Carlsbad Salts. For the anemia, I prescribe Fowler's solution in some form of albuminate of iron well borne by the stomach and, when properly mixed, perfectly compatible with the arsenic.

(5) In the event of such *complications* as perforation and desperate and uncontrollable hemorrhage, I would call in the laparotomist. But medical treatment can do so much for a hemorrhage and surgical relief is so problematical, that I would hold laparotomy as a last resort.

SURGICAL ASPECTS OF GASTRIC DISEASES WITH REPORT OF SIX CONSECUTIVE GASTRO-ENTEROSTOMIES.

By AUGUST SCHACHNER, M. D., Louisville, Ky.

The suggestion expressed by different writers within the last year or more, that all cases of digestive disturbances that failed to yield to treatment within three months be referred to a surgeon, is growing and will continue to gain ground.

While fully endorsing the foregoing statement, the writer would desire to modify the same that it may more appropriately cover all the conditions by which we are frequently confronted. We would urge that any condition, that is not cured within three months or if cured, does not "stay cured" a reasonable length of time, be given the benefits of a surgical inspection.

In our limited experience we have seen cases that have been "cured" a half dozen times per year for more than ten years and then as a *dernier resort* find their way into the hands of the surgeon to receive perhaps only partial relief, because of the advanced changes in and about the stomach and the generally depressed condition of the patient.

It is true that the internist should first exhaust internal measures before the thought of a surgeon is entertained; it is equally true, that surgery is not without its shortcomings and failures, but what is truer than these statements is that it surgery can cure many of the stomach cases even after they have become inveterate and with the patient depressed, how much more could it do if it were not reserved as the last resort of an almost forlorn hope but employed within a reasonable time after medical measures have failed.

Generally speaking, the conditions that recur from time to time are not each time "cured" or, for that matter, even relieved. The patients have simply "weathered" through the attacks.

The greater part of our knowledge of the pathology of these as well as other conditions is largely based upon observations made at the post-mortem table. Valuable, as this source of information is, it is nevertheless very misleading in that, it only deals with the latest changes of the disease and frequently with little or no reference to primary or even secondary changes that preceded the late manifestations.

It is only since the post-mortem observations have been supplemented by studies at the op-

erating table that our knowledge of the pathology of these conditions has really become throughout a trustworthy and an unbroken story. Therefore, it is apparent that an early revision of the chapters upon the diseases of the stomach must become an inevitable necessity.

Much of the failure in the treatment of disturbances of the stomach is due to the inability to grasp the idea that the stomach is something more than a mere container, in which chemical changes are occurring. In many cases, the changes are primarily motor or mechanical in character and the chemistry of the digestion is not disturbed until relatively late in the trouble.

Again, time and opportunities are frequently wasted in the laboratory methods of investigating the case. As Mayo, "Annals of Surgery" Vol. XXXIX, page 322, aptly says: "In the surgical stage, these examinations have little value, but gain in diagnostic importance with the progress of the disease to become of the greatest value, only when the patient is in a hopeless condition." He further states: "These examinations should be made, but explorations should not be delayed by reason of the inconclusive nature of the results." After criticising certain methods of investigating the motor sufficiency, Sahli, *Lehrbuch der klinischen Untersuchungs Methoden*, page 378, concludes: "Ich bin im ganzen zu der Überzeugung gekommen, dass alle diese scheinbar eleganten Methoden der Motilitätsprüfung nur wenig zuverlässige und jedenfalls nur in groben verwertbare Resultate geben."

"On the whole, I have come to the conclusion that all these apparently elegant methods for determining the motor sufficiency are of little positive value and their results of but general significance."

Again, William J. Mayo expresses himself, "Annals of Surgery" Vol. XXXII, page 254. "The scientific zeal with which the diagnosis is sought has in itself a distinct danger. The suspicious case is often kept under observation too long in the hope of making a positive diagnosis. The surgeon should not ask the physician for a diagnosis of gastric cancer; if we wait for that, we are pretty sure of being too late. It is the suspicious cases which should be explored and it is the duty of the physician to urge this when in doubt."

John C. Hemmeter in a paper on "Cancer of the Stomach" before the "American Surgical Association," annals of Surgery, Vol. XXXII, page 99, points to the following: "The ingenuity, immense amount of investigation and indefatigable perseverance which have been bestowed upon the chemical and histological methods of diagnosis of gastric carcinoma cannot but excite universal admira-

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tion, but in my experience they are no greater help to the clinician for the recognition of this disease than the simple continuance or even aggravation of a chronic gastritis and progressive loss of body weight (though every other symptom and sign may be lacking) in spite of proper treatment," and further says; "It must be borne in mind that the gastric mucosa does not secrete hydrochloric acid all over, i. e., in all its parts. Only the middle portion secretes hydrochloric acid; the pyloric region does not secrete it. Although the degree of reduction of hydrochloride acid secretion depends upon the extent of gravity of the gastritis which is caused by the carcinoma, nevertheless this may be limited to the pyloric regions, where it will not interfere with the glandular apparatus which forms the hydrochloric acid." F. Mall (Johns-Hopkins Hospital reports, Vol. 1) concludes with Heidenhain that the oxyntic or border cells in the peptic ducts are concerned in the production of hydrochloric acid, and the central cells in the production of pepsin. Now, as the pyloric region contains no border cells, a carcinoma may reach as far as the antrum pylori, a distance of from three to five inches, before it will invade the region which contains the acid or border cells. I have seen six cases in which the presence of free hydrochloric acid continued to the end of life. In two of these cases the carcinoma was seen during the operation, and in the remaining four at autopsy. These six cases had not originated on the basis of an old gastric ulcer, but were circumscribed knots of cancer, leaving the mucosa largely intact. In all carcinomas that have arisen from ulcers, free hydrochloric acid in normal or even in increased amounts may continue until death. This is sufficient evidence for the conclusion that the presence of free hydrochloric acid does not argue against cancer of the stomach. On the other hand, absence of free hydrochloric acid is no specific sign of this disease. It occurs in other gastric diseases leading to atrophy: it may occur in diseases of other organs, for instance, disease of the kidneys, pulmonary tuberculosis, and valvular cardiac, diseases."

We have freely quoted from these eminent authorities both surgeons and internists, not from any desire to undervalue the true importance of laboratory methods in the diagnosis of diseases of the stomach. But these methods as they are usually employed result through loss of time and opportunities in quite as much, if not more harm than good.

What should be aimed at, is to secure in this, as in all other conditions of surgery, the maximum amount of information for our bearings on the case, but secure it in the shortest possible time.

According to Gussenbauer, *Annals of Surgery*, Vol. XXXII, page 256: Approximately in carcinomas 10 per cent. involve the cardiac area, 30 per cent. the body, and 60 per cent. the pyloric end of the stomach.

Concerning the localization of the cancer, von Mikulicz, *Annals of Surgery*, Vol. XXXIX, page 304. "If the results of post-mortem examinations are compiled, it will be found that certainly in the majority of cases the pylorus is included in the carcinomatous process. If, however, the result of the operations are considered, that is, in the earlier stages of carcinoma, it will be found that the lesser curvature is most frequently affected by the carcinoma, which then attacks the pylorus secondarily. According to his experience, carcinoma of the stomach is situated in about 40 per cent. of cases primarily in the lesser curvature, and only in 20 per cent. of cases primarily in the pylorus."

Wm. J. Mayo, *Annals of Surgery*, Vol. XXXII, page 255, "Every cancer is at one time a local process, and in that stage curable, but the duration of this stage is usually short. The rapidity of progress of carcinoma of the stomach is largely influenced by the relation of the cells to the stroma. If the cellular elements predominate the growth is soft and its extension rapid. If the stroma is in excess of the parenchyma, the tumor mass is harder and slower of growth. Hemmeter classifies the malignant epithelial tumors of the stomach into (1) Adenocarcinoma, (2) Cylindrical carcinoma, (3) Medullary carcinoma. The common degenerations being colloid and scirrhus. The colloid type is usually an unfavorable indication and if it exists to any extent indicates a late stage of the disease beyond radical intervention. Secondary nodules, the result of a primary gastric cancer, are especially prone to this form of softening, and may obscure the original focus. In the metastatic deposits in the omentum, colloid degeneration may develop a tumor of very large size. Sutton describes one weighing ten pounds. Scirrhus refers to the relatively large proportion of connective tissue stroma which is undergoing more or less contraction, and indicates a slower process. This variety is the most common form of stomach carcinoma (72 per cent. Brinton)."

According to Ziebler, there are carcinomas that are attended neither by the formation of a distinctly large tumor nor of a growth with sharp and definite outlines, but where the process is confined to the sub-mucosa and is characterized by the absence of distinct tumor of a definite outline, but is attended with free and rapid dissemination.

Before taking up the treatment of gastric disturbances, we might profitably recall the

salient points in connection with the physiology of the stomach and the digestive processes therein.

Sahli, in a singularly clear manner has pointed out the multiple duties of the stomach. First, as a reservoir or depot which enables us to take the necessary amounts of food at given times of the day and dispose of it in the intervals, thus making the nourishment of the individual the most continuous and convenient possible arrangement. Second, as a medium of absorption. Third, as a motor organ through which the food is reduced to a more or less uniform semi-fluid mass, is intimately mixed with the fluids, (salivary and gastric) and propelled from the stomach at the right time and in the right proportions. Fourth, as an antiseptic arrangement by which organisms that have been taken in with the food, are destroyed before their entrance into the intestinal tract. Lastly that of the digestion of the nitrogenous foods, which unfortunately, some who have overlooked the preceding functions seem to think the only function.

The disease may have its beginning in a disturbance of any of these functions to which may be added, secondarily, a disturbance of other functions which in the beginning were not involved. For example: through a neurosis the acidity of the gastric juice may be so disturbed as to alternate between acidity and hyperacidity, a condition which Hemmeter has given the name of *hetarchyia* and as a result of such disturbances, there may be an ulcer, the cicatrix of which may become the seat of a future cancer.

According to Sahli, in the normal stomach the greater curvature should not descend below a point two fingers breadth above the umbilicus.

The capacity of the stomach is quite variable, it may naturally be a large one or its enlargement may be dependent upon the character of the food, as for instance, where a vegetable diet has been observed. However the size may be, it is not clinically speaking called a dilated stomach or *Stauungs Magen*, unless there exists a disturbance of its motor functions or a motor insufficiency.

If any portion of food remains longer than seven hours after the meal, it is good evidence of a motor insufficiency. Continued hyperacidity is frequently dependent upon this motor insufficiency, the presence of food stimulating the mucous membrane to secretion or on the other hand, hyperacidity may produce the motor insufficiency.

Formerly if fluids, such as water and coffee remained in the stomach, it was believed that it indicated not alone a motor insufficiency, but likewise a disturbance of absorption.

The investigations of V. Mering have

proven that absorption of fluids from the stomach is very slight and that the retention of such fluids is indicative of a disturbance of the motor functions.

After a meal there first occurs, under the influence of the ptyalin, the amylolytic period of digestion. The starch is transformed into achroo and erythro-dextrine. Any cane-sugar that may have been taken is partly transformed into grape-sugar. Under the influence of organisms, there occurs a partial lactic-acid fermentation of the grape-sugar.

This amylolytic period on the average lasts three-quarters of an hour, but is absent if only meat is eaten. The mucous membrane of the stomach secretes muriatic acid and pepsin. At first the muriatic acid is in combination. We do not have free muriatic acid in any quantity until one-half to three-quarters of an hour, when the amylolytic period is brought to a close, because the diastatic action of the saliva cannot go on in an acid solution.

The lactic acid disappears after the first hour. The stomach now contains an increasing amount of free muriatic acid which reaches its maximum 0.2 per cent. in from two to five hours. Simultaneously with the free muriatic acid the milk curdling or rennet-ferment appears. The pepsin and rennet-ferment are not secreted as such, but are formed by their zymogens pro-pepsin and rennet-zymogens. Under the influence of the muriatic acid they are transformed into pepsin and rennet-ferment.

Under the influence of the 0.2 per cent. of free muriatic acid, we have the antiseptic action of the gastric juice by which the greater proportion of the organisms swallowed with the food and drink are destroyed. Through the combined influence of peristalsis and the ferments, the food is comminuted and reduced to a homogeneous mixture. A small portion of this is absorbed, the majority is gradually passed little by little into the duodenum.

When we have a superacidity, there is an interference with the digestion of starches and usually a more rapid digestion of albuminous bodies. Diminution of muriatic acid as a rule, goes hand in hand with diminution of pepsin, but increase in the muriatic acid does not necessarily carry with it increase in pepsin, on the contrary, the latter may be absent.

With subacidity, not only are the albuminous bodies imperfectly digested, but under the influence of unrestrained development of micro-organisms, there occurs a fermentation with formation of lactic acid in excess of the normal time and amount. This abnormal chemical activity produces disturbances of the peristalsis. It is noteworthy that cocci and bacilli thrive where there is an absence or diminution in the acidity while the sarcino and

yeast fungus thrive where there is excessive acidity.

TREATMENT.

Valuable as the operation of gastro-enterostomy has in recent years proven, it is to be remembered, that it is not without its contra-indications. Because a case of stomach disturbance has resisted all forms of internal treatment does not necessarily mean that it can be cured through a gastro-enterostomy. All new procedures in surgery are doomed to run the gauntlet of improper application and gastro-enterostomy will be no exception to this rule.

Although Wathen's inquiry, (*Gastro-enterostomy*. Wm. H. Wathen, "Journal American Medical Association," Vol. XLIV), has shown that there exists an almost unanimity of opinion among the best operators on the principle questions, there yet remain many fine points which demand more time and experience for their settlement. The Wathen inquiry, which is valuable in that it represents the first digest of the subject, reflecting the opinions of the five foremost American and five European operators in this particular field of surgery, namely: Robson, von Mikulicz, Kocher, Czerny, Moynihan, Mayo, Murphy, Ochsner, Deaver, and Park.

They all agree that the results are satisfactory and that the preferable point for the stomach opening is on the posterior surface near the greater curvature. Barring Ochsner, who makes a loop of six to eight inches in non-malignant conditions and Deaver who makes a loop of ten to twelve inches, all agree that the loop should be eliminated and the opening in the jejunum should be made as near to the duodenojejunal angle, as is consistent with good mechanics. With the elimination of the loop the entero-anastomosis is dispensed with, except in the case of Deaver, who still does the entero-anastomosis and Ochsner, who does the Roux operation in partial gastrectomy.

From the replies upon this point we gather the impression that although the entero-anastomosis is dispensed with, because of the absence of the loop, that if, for any particular reason it became necessary to do an anterior anastomosis or for any reason a loop was formed in a posterior operation, entero-anastomosis would be desirable. All but Deaver agree, that closure of the pylorus is unnecessary. Deaver, in referring to this question, speaks of having closed it in two cases with good results. The length of incision varies from one to three inches and nearly all are in favor of removing the projecting mucous membrane. Barring Kocher, none have had any or at least in very exceptional instances a vicious circle or regurgitant vomiting.

Kocher's expression, is to the writer, inter-

esting and extremely suggestive, namely: "As a great exception, in nervous people, and in cases where the indication was not absolute have had regurgitant vomiting."

Mayo, has had the gastrojejunal, opening close in course of time. Ochsner, has had a similar experience where the button was used. The others did not have a closure in the opening.

There seems to have been more difference of opinion regarding the influence of bile and pancreatic fluid upon the stomach than any question which Wathen propounded. Mayo, Deaver and Kocher believe that these fluids were capable of producing regurgitant vomiting. Murphy, thinks it might, but doubts if it does. The remaining took the negative side. It is again worthy of note that Kocher restricts it to nervous people.

The operation now practiced by the majority of surgeons was originated by Moynihan. A description we give here in Moynihan's "Journal American Medical Association, Vol. (XVIII, page 1,971)" own words, as follows:

"The abdomen is opened about three-quarters of an inch to the right of the middle line, and the fibers of the rectus are split. After the peritoneum is opened, the great omentum and transverse colon are lifted out of the abdomen and turned upward over the epigastrium. The under surface of the transverse mesocolon is exposed, and the vascular arch, formed mainly by the middle colic artery, is seen. A bloodless spot is chosen, a small incision made in the mesocolon, and the finger passed into the lesser sac. The opening of the lesser sac is not always quite easy, and this is more particularly the case where there are adhesions between the transverse mesocolon and the stomach. It will be found of advantage to seize a small portion of the mesocolon in a clip, at a point near the spot selected for the opening. On drawing the clip away from the stomach the mesocolon is put on the stretch; a snip of the scissors by the side of the clip opens the lesser sac at once. The opening in the mesocolon is then gradually enlarged by stretching and tearing until the fingers can be passed through it. It is occasionally necessary to ligate a vessel. The left hand of the surgeon now makes the posterior surface of the stomach present at this opening, and with the right hand the stomach is grasped and pulled well through. A fold of the stomach about three or four inches in length, is seized with a clamp (a modification of Doven's clamp), whose blades are sheathed in rubber tubing. The clamp is applied in such a way that the portion of the stomach embraced by it extends from the greater curvature obliquely upward to the lesser curvature and toward the cardia. This is accomplished by applying the clamp obliquely, the tip of the

blades pointing to the patient's right shoulder, and the handle to the outer side of his left hip. It is important that the point on the great curvature held by the clamp should be the lowest point. This is made certain before the stomach is turned over to reach its posterior surface, by observing that point which lies lowest in the abdomen. When the posterior surface is exposed, special care is taken that this lowest point is fixed in the end of the clamp.

The duodenojejunal angle is now sought, and readily found by sweeping the finger along the under surface of the root of the transverse mesocolon to the left of the spine. The jejunum is then brought to the surface, and a portion of it, about two or five inches from the angle, is fixed in a certain pair of clamps. The two clamps now lie side by side on the abdominal wall and the portion of stomach and jejunum to be anastomosed are well outside of the abdomen, embraced by the clamps.

It is most important that precisely the right portion of the jejunum should be selected for the anastomosis. Almost all operators select a point far too low down. I decide on the point for the anastomosis by grasping the jejunum in my fingers and pulling it taut from the flexure. The jejunum while so held is laid against the posterior surface of the stomach and the fingers are moved along until they grasp the point which reaches exactly to the greater curvature of the stomach. The clamp is then applied so that this portion is the lowest piece (the piece that is most distant from the flexure) embraced by it. The result is that the jejunum from the duodenojejunal angle to the anastomosis forms a straight line, not a curve. The relation, therefore, is that which approximates most nearly to the normal. It is, I believe, the sagging of the jejunum, when a point eight or twelve inches or more from the flexure is used for the anastomosis, that is responsible for regurgitant vomiting.

The stomach, with the exception of the part embraced by the clamp, is returned to the abdomen through the upper part of the incision. The whole operation area is now covered with gauze wrung out of hot sterile salt solution, the clamps, with the stomach and jejunum which they embrace, alone being visible outside the abdomen. A continuous suture is then introduced, uniting the serous and subserous coats of the stomach and jejunum. The stitch is commenced at the left end of the portion of gut enclosed in the clamp, and ends at the right. It begins on the stomach in that part which is nearest to the cardia and to the lesser curvature, and on the jejunum at that point which is nearest to the duodenojejunal flexure. The length of the sutured line should

be at least two inches; its average length is two and one-half or three inches.

In front of this line an incision is now made into the stomach and jejunum, the serous and muscular layers of each being carefully divided until the mucous membrane is reached. As the cut is made, the serous, muscular and submucous coats retract and the mucous layer pouts into the incision. The cut edges of these coats are loosened all around from the underlying mucosa. An ellipse of the mucous membrane is now excised from both stomach and jejunum, the portion removed being about one and three-quarters or two inches in length, and rather more than half an inch in breadth at the center. The gastric mucosa shows a marked tendency to retract; it is, therefore, seized with a pair of miniature (French) vulsella on each side. No vessels are ligated, as a rule. The cut surface of the bowel and stomach may occasionally ooze slightly; this can be checked at once by tightening the clamps one notch.

The inner suture is now introduced. It embraces all the coats of the stomach and jejunum, and the individual stitches are placed close together and drawn fairly tight, so as to constrict all vessels in the cut edges. This suture begins at the same point as the outer one, and is continued without interruption all around the incision to the starting point, where the ends are tied and cut short. It will be found that there is no need to interrupt the stitch at any point, for there is no tendency on the part of the sutured edges to pucker when the stitch is drawn tight. It is indeed a positive disadvantage to interrupt the suture anywhere for by so doing the hemostasis is not so secure. The clamps are now removed from both the stomach and jejunum, in order to see if any bleeding point is made manifest. Very rarely—about once in ten passes—a separate stitch at a bleeding point is necessary. The outer suture is now resumed and continued round to its starting point, being taken through the serous coat about one-sixth of an inch in front of the inner suture. This outer stitch is also continuous throughout; when completed, the ends are tied and cut short, as with the inner stitch. There are thus two suture lines surrounding the anastomotic opening—an inner hemostatic, which includes all the layers of the gut; and an outer approximating, which takes up only the serous and subserous coats.

For both stitches I use thin Pagenstecher (celluloid) thread. The needle used is of a special pattern, being rather more than half a circle and having a slot eye for easy threading. In introducing the stitches it will be found a great advantage to draw lightly on the thread between the needle and the last stitch. A little ridge is thus raised up both in

the stomach and in the intestine, and into these ridges the needle passes quite readily. There is, then, no need to dip down, as it were, to pick up the gut on the point of the needle.

The gut is lightly wiped over with a swab, wet in sterile salt solution, and the stomach and transverse colon and cmentum which had been replaced within the abdomen are now withdrawn.

With the left hand holding these and the right holding the jejunum, the slit made in the mesocolon is seen to embrace the line of suture snugly. Two or three interrupted sutures are now introduced which unite the margins of the slit in the mesocolon to the jejunum close to the suture line. As a rule, I use three stitches, one on each side, and one at the lowest point of the anastomosis. The result of this is that the line of suture in the anastomosis is not seen from below. It is everywhere closely embraced by the edges of the rent in the mesocolon, and it is thereby considerably reinforced. Leakage from the suture line or yielding of it is virtually impossible; it has never occurred in any of my operations. If it were possible, it would be rendered very much less likely by this modification.

The posterior operation although the procedure of universal election is in rare instances undesirable as Moynihan "Abdominal Operations," page 159, points out: For example:

"On account of adhesions between the posterior surface of the stomach and the pancreas, or of the invasion of the posterior wall by growth, or because the mesocolon is too short. The only difference is that a point in the jejunum some twelve or fifteen inches from the flexure will be chosen for the point of anastomosis, so as to avoid any chance of compressing the transverse colon by an unduly tight loop of jejunum. The oblique application of the clamp and the method of suture are precisely the same as in the posterior method.

In an anterior operation an entero-anastomosis is perhaps an advantage, though in the few cases in which in my earlier days, I adopted this method, I did not make a junction between the two limbs of the loop. An entero-anastomosis may also be performed after the posterior operation if a loop be left."

The complications which may attend a gastro-enterostomy are several, the most usual and the most important is that of regurgitant vomiting or vicious circle. Formerly, it was believed that this was due to the return of food mixed with the bile and pancreatic fluid into the stomach through the anastomatic opening. Although there is an abundance of clinical evidence at hand to prove that it is possible for the bile and pancreatic fluids to find their way into the stomach without producing any

disturbance it seems equally true, that in certain cases the entrance of these fluids into the stomach are quite capable of producing serious vomiting.

The Wathen inquiry upon this point has shown Mayo, Deaver and Kocher favoring the belief that these fluids can produce regurgitant vomiting and Murphy non-committal. This almost amounts to an equal division of opinion. The reply of Kocher, that it occurs in nervous people is worthy of serious thought. Although there is a difference of opinion upon this particular feature, we believe that it is generally conceded that where regurgitant vomiting occurs, it is more apt to be due to defective mechanics, rather than the presence of bile and pancreatic fluids. Although, the latter are capable of producing the complication in exceptional instances.

The experiments of Cannon and Blake, "Annals of Surgery" Vol. XLI, are deserving of careful study.

Their explanation of the influence of the dilatation of the stomach upon anastomatic opening and the formation of kinks is very impressive, for instance, "Circulation of the food through the pylorus to the duodenum and back to the stomach through the anastomosis has been repeatedly observed, but it was not followed by the clinical symptoms of the "Vicious circle." The circulation was observed best when the stomach was very full. The stretching of the stomach separates the lips of the stoma and draws the intestinal walls into line with the gastric wall. The openings into the intestine at the stoma then become mere slits, and act like valves, permitting the entrance, but preventing the exit, of the food.

The clinical symptoms of the "Vicious circle" have been observed in animals in which a kink in the intestine has been found just distal to the anastomosis. Kinks at this point cannot be straightened by peristaltic activity because the circular fibres of the intestine are cut at the nearby stoma.

CASES.

Case No. 1—

Miss ———. Age 24 years. Nativity United States. Personal history, when a child had some exanthemata. Four years ago she began to have gastric disturbances in the form of nausea, eructations and vomiting; there has been no haematemesis or melenema. These disturbances gradually increased in severity and were produced by more articles of food until she became restricted to chocolate and flake crackers. The latter would only agree with the patient provided they were used in limited amount. Gastro-enterostomy was suggested and carried out.

Three opaque and indurated areas occupying the right extremity of the lesser curvature

and pylorus were present as evidences of the ulceration.

A posterior gastro-enterostomy with entero-anastomosis was performed. Before the operation there had been a moderate tendency towards constipation. The operation and the subsequent course of the patient was uneventful, the highest temperature was 99 2-5, the highest pulse rate 96, on the third day she was given her first food of liquid character which was gradually increased until the sixth day when she was placed upon a light diet including steak. On the sixth day she was partaking of food that she had not been able to digest since three years past. She was seen on May the 10th and reported at that time that since her departure from the infirmary she was able to eat all kinds of food with impunity. This was about four months after the operation. She had also gained considerable in weight. A still later report continued improvement.

Case No. 2—

Miss ———. Age 43 years. Nativity United States. Family history, tuberculosis upon maternal side. Personal history negative until the eighteenth year when she had an attack of variola of a violent type. At the age of twenty she began to manifest gastric disturbances in the form of nausea, vomiting, eructations and gastric oppression after eating. At first these were symptoms only occasioned by certain articles of food but later on the varieties of food that occasioned the disturbances increased, and the amount of food that she was able to retain was plainly insufficient to sustain her condition. These disturbances have been of twenty-three years duration and very gradual in their development. It was during the last year that the principle ground was lost. Constipation was a complication that gave considerable trouble during the latter years. The patient vomited blood only on one occasion and that a very small amount. The gastro-enterostomy was proposed and accepted. The posterior operation with entero-anastomosis was performed with success.

At the time of operation two opaque spots and some adhesions marked the areas of ulceration.

The subsequent course was uneventful, the highest temperature being 99 4-5 and the highest pulse rate 112. For several days following the operation there was considerable bilious vomiting, this subsided however, and at the end of one week she was able to take a light diet which was more food than she had been able to take for a number of years. At two months after the operation she was able to eat any food in light quantities except cabbage. She gained in weight and

there was a distinct improvement in constipation. During the time there has been but one attack of vomiting and that was due to a bilious attack. Almost a year since the operation, she continues to improve, being able to eat all kinds of food except cabbage which she was never able to eat and is slowly gaining in weight.

Case No. 3.

Mr. F. S., Age 60 years. Occupation stonemason. Nativity Germany. Family history: Father died of meningitis age 53. Mother died of old age at 75 years. When 16 years of age he had an attack of appendicitis and at the age of 55 an attack of typhoid fever and for a number of years attacks of rheumatism.

Stomach symptoms began 35 years ago while a soldier during the Franco-Prussian war. The symptoms consisted of pain lasting 15 to 20 minutes two or three times a week, not particularly severe at first, but growing in severity as the case progressed until at times excruciating in character. Relief was found through pressure externally applied and external heat. When these remedies failed emesis was provoked which never failed to bring relief. These symptoms were at first produced only by certain articles of food. As time progressed, the articles of food that produced the symptoms increased in number and the articles of food that he was able to take without producing these symptoms decreased in number until he was reduced to "Slops" which in themselves hardly failed in producing more or less disturbance. At times, he complained of a sensation as though he had ice within his stomach. The pain at times was so severe that he would crawl about on the floor. As time passed on, the attacks increased in frequency and severity.

Posterior gastro-enterostomy (Moynihan) without entero-anastomosis and without loop was performed.

The pylorus seemed closed and the pyloric region, i. e. from pylorus to about three inches to the left of the pylorus was so thickened that it was difficult to decide as to whether this was a carcinoma or extensive induration following ulceration. The latter was finally decided upon. The adhesions in and about the stomach were very extensive. The jejunum was liberated by dissecting it out of dense adhesions.

Just before the operation he lost 20 pounds in weight. His condition became such as to retire him from active work. Within two and a half months after the operation he had gained about 30 pounds and was again at the laborious work of stone mason, eating any and everything he desired.

Case No. 4—

Miss F———. Age 43 years. Occupation

———. Nativity American. Father died at the age of 72 years from some prostatic disturbance. Mother died at the age of 62 from obstruction of bowel. Two brothers, both of whom reached maturity, and both died of tuberculosis.

Her sister, the other remaining member of the family seems strong and well-nourished, but upon questioning, suffers from disturbance of the gastric digestion. The patient had the usual eruptive fevers common to childhood including variola. Two years ago she passed through an attack of typhoid fever. The present stomach trouble began about ten or twelve years ago in the form of heaviness in region of the stomach after eating certain articles of diet. After eating the particular food she relieved herself of the discomfort by spitting up the food as she expressed it. Rarely was it necessary to vomit. Although nausea was a common attendant and the history brought out several retching spells.

There was no history of the loss of blood by the mouth or stools. The articles of food that produced the disturbances increased in number, necessitating a growing reduction in the variety of food the patient was able to take until she became restricted to 3 ounces panopepton per 24 hours, upon which she had been for the last five weeks prior to the operation.

At the time of operation, several opacities and indurations, together with light adhesions were apparent both anteriorly and posteriorly.

A posterior gastro-enterostomy (Moynihan) was performed. The first twenty-four hours she vomited pure bile, the second twenty-four hours there was a slight decrease in the amount of bile, but hardly in the amount of fluid. In the third twenty-four hours a still further decrease in the amount of bile, the fluid remaining about the same in volume. On the fourth day it was deemed best to reopen the abdomen and investigate the mechanics of the condition. There was scarcely more than the suggestion of a kink at the efferent end. This suggestion of a kink was overcome by stitching an inch beyond to the stomach and thus, bringing the gut in a straight line. The nausea which followed this was little more than that which attends an average abdominal section. The condition and feeling improved until the twelfth day after the first operation or nine days after the second operation. During the twenty-four hours preceding the twelfth day she had taken six eggs and thirty-three half ounces of liquid food.

Vomiting again began with depression which continued for two days ending in death from exhaustion on the fourteenth day. During the two weeks there was no unfavorable surgical symptom whatever.

P. M. Abdominal and anastomatic wounds

healed. Pylorus scarcely large enough to admit a match. Evidences of gastric ulceration were apparent at the time of operation and at the post-mortem. There was no apparent defect in the mechanics of the condition. She had been treated by a number of clinicians by lavage. In this case the stomach seemed too flabby and degenerated to assume even the partial duties that existed after the gastro-enterostomy.

* * *

DISCUSSION.

Dr. J. J. Moren, Louisville: History tells us that the first gastric ulcer was found in the wife of a physician. And the medical profession is still battling with this same question after all these years. From the recent investigations of surgeons it appears that much improvement will be shown by these various operations. I do not oppose surgery. Wherever surgery is indicated, by all means resort to surgery. I am too skeptical of medicines to dispute the value of the knife, but I do dispute the frequency of organic diseases of the stomach, and especially the frequency of ulcer. Let me ask each of you how many cases of gastric ulcer you have treated? How many cases did you think were cases of gastric ulcer? How many of these cases were proved to be gastric ulcer at the post-mortem?

There are other conditions which we must consider, and one condition in particular which I feel is lost sight of more or less by the medical profession. It occurs in from 50 to 80 per cent, of the cases in foreign countries, and in from 30 to 50 per cent. of the cases in this country. I refer to the gastropnoia. Many cases of chronic indigestion are due to this condition and not to gastric ulcer or some other organic change in the stomach. I agree with one of the essayists who said that "these cases of chronic indigestion should be investigated more thoroughly, and if they are investigated more thoroughly by means of gastric analysis, you will find that there are fewer cases of gastric ulcer than the surgical literature would lead us to believe exist."

As to the value of gastric analysis, any one who has done any work in that line will not doubt its value in the least. It informs you of the workings of the stomach just as urinalysis informs us of the working of the kidney. It tells you whether the HCI is diminished, increased or entirely absent. It tells whether the stomach is emptying itself properly. And then there remains for the diagnostician to sum up the other symptoms, compare them with the findings of the gastric analysis, and make a diagnosis.

The three cardinal symptoms of gastric ulcer, vomiting, pain and hemorrhage, are found in anywhere from 75 to 80 per cent. of these cases. The remaining 20 to 25 per cent. are the ones that cause trouble. No one will dispute the existence of a gastric ulcer when the symptoms are

typical, but where there is only pain, or only vomiting, or only chronic indigestion, then there is room for dispute.

What constitutes a history of ulcer in these cases? How much value will you place on pain and vomiting? How much value will you place on the associated symptoms, anemia, loss of appetite, etc.? That remains for the individual to decide. In nervous cases you are very likely to be misled by the pain. Only a short time ago I had a gentleman brought into my office suffering from excruciating gastric pain. That was the only symptom he had. You might suspect ulcer, if you listened to his story, but he was a very nervous man. The gastric analysis showed that the motor function was all right; there was an increased amount of HCl; there was no hematemesis or blood in the feces. My diagnosis was hyperacidity. His pain was characteristic of hyperacidity, not of ulcer. The pain of ulcer occurs at the time of the digestion of the food, while in hyperacidity it comes on later after the stomach has emptied itself, when the free HCl is stimulating the pylorus and is causing hyperesthesia. The pain of hyperacidity is relieved by food, while the pain of ulcer is increased by the ingestion of food.

As to the diagnosis of gastropotosis. There is either painful digestion or eructation of food with retention, perhaps, and symptoms of that nature, but not the cardinal symptoms of ulcer.

With regard to surgery. I am in favor of operating when operation is indicated. And when there is pyloric stenosis or obstruction, surgery is the only thing that will afford any relief. Medicines are powerless in these cases. Then it remains for the surgeon to decide which is the best operation. Personally, I do not know. I am not familiar enough with surgery to select the proper operation for the individual case, but I do know that in these cases of obstruction of the pylorus resulting in hyperplasia of the tissues or cicatrices of ulcer, we must operate; but that all these cases are due to ulcer is a dictum I cannot accept.

As to the treatment of ulcer, I am in favor of dieting as much as possible. Recently I saw a review of an article by Leube in which he insists on feeding and reports good results. Reports show that the results obtained by medical treatment are better than those obtained by surgical treatment. The mortality is less. I favor the olive oil treatment very much. I have seen good results follow its use. It diminishes the secretion of hydrochloric acid; it has a soothing effect on the ulcer, and it is also a food.

Dr. Wm. H. Wathen, Louisville: The time is too limited to discuss a question so broad and interesting in all its phases. Besides, I have written so much on this subject in the past two years that my views are generally understood by the profession. Therefore, I will allude to only a few points.

In the first place, the medical treatment of

ulcer of the stomach and the results of such treatment are practically identical with the results of the medical treatment of acute appendicitis. It has been shown by the surgeon that nine-tenths of all chemical analysis of the stomach contents made within the past fifty years have been of little value in the diagnosis of the exact pathologic condition. There is no chemical analysis, nor is there any microscopic analysis that will diagnose correctly the condition of the stomach in an acute or chronic indigestion.

We find some cases with a certain pathologic condition in which there is a hyperchlorhydria, while in other cases, with an apparently almost identical pathologic condition, there is a hypochlorhydria, either from the very beginning or as an end result. There is only one positive way of finding out the exact condition of the diseased stomach that has passed the acute stage and has gone on into the form of chronic indigestion, and that is to make an exploratory laparotomy. That is the treatment which I advocate and which we must all advocate persistently in the future. By these means many lives may be saved.

The essayist on surgery presented a most valuable paper, and one of the most valuable things in it was his report on the fourth case that died. This case did not die because of the surgeon, but because he did not come to the surgeon in time to be operated on successfully. Had Dr. Schachner seen him before pathologic changes developed that no operation could relieve, the patient would have recovered. Therefore the results of timely operation in chronic ulceration of the stomach are better than are the results of medical treatment.

It is true that many cases of acute ulcer apparently get well without medical or surgical treatment, but I doubt the efficiency of medical treatment, or stomach lavage. In fact, I believe they may be harmful by increasing the danger of hemorrhage by irritation, or a result of traumatism. These acute cases need rest of body and rest of stomach. When they pass into the chronic stage, they need nothing but surgery, as early as possible. Drain the stomach because the mechanics of the stomach digestion have been interfered with; and which is the best method of stomach drainage is the important question now before the surgical world.

I recently addressed a letter of inquiry to ten of the leading men on stomach surgery in the United States and in Europe so as to bring about, if possible, a consensus of opinion as to the best method of drainage. The answers to these twelve inquiries as to the matter of stomach drainage will be found in the issue of the Journal of the American Medical Association. Two years ago I made the assertion that there was but one method of doing a gastro-enterostomy that could be selected as an operation of election, and that is the retrocolic posterior attachment to the lower part of the stomach near the duodeno jejunal junction with the elimination of the loop, and

time has demonstrated the truth of what I then said. Dr. Mayo, who has done more operations than any other man in this country, has, until the past six months, done either the anterior or posterior operation, with a loop in the jejunum, constantly doing an entero-anastomosis, eliminating the afferent loop, or closing the pylorus. He has abandoned these methods and is now making his anastomosis posteriorly as near the attachment of the jejunum with the duodenum as possible.

The operation of gastro-enterostomy with the loop will have to be abandoned; and the mutilating operations of pyloric resection or closure, entero-enterostomy, and division of closure of the proximal limb will become obsolete. In one of the operations reported to-day where the patient was operated on by a posterior gastro-enterostomy it was discovered that there was a malignant nodule. The operation should have been carried further. It should have been a partial pylorotomy, and the diseased pylorus, together with the infected glands, should have been removed. In my anterior gastro-enterostomies the patients died. In the posterior gastro-enterostomies without a loop they do not even vomit.

Dr. G. A. Hendon, Louisville: I only wish to contribute to this discussion so far as it applies to a class of cases in which there is no previous history of gastric disturbance. My attention was directed to these cases by a personal case, and on searching the literature I discovered that there are quite a number of such cases in which the initial symptom is a sudden, overwhelming, alarming and copious hemorrhage.

There are three varieties, one of which comes on without any apparent reason. The second usually follows laparotomies, and the third is one which occurs as a vicarious menstruation. There is one particular thing about the pathology of this condition which has been very clearly demonstrated. It has been constant in the operative as well as in the post-mortem revelations and that is, they are all characterized by a multiplicity of the lesions. There are a large number of eroded points in all parts of the stomach mucosa, some operators reporting as many as fifteen or twenty, and others found so many that they could not be counted. One reason why they have been overlooked so long is that these lesions are so small that they escape detection by the unaided eye, even in the case of the most expert operator and pathologist.

The etiology has been clearly demonstrated in at least two cases, in which sepsis was the cause. One case followed a suppurative appendicitis, in which the thrombi in the vessels of the stomach were demonstrated microscopically. An Italian observer reported a case that followed a suppurating bubo. Robson has not been inclined to accept this view, but believes that they are the result of some nervous reflex action. In some of these cases the hemorrhage is enormous. They usually occur in young women between the ages

of 25 and 35. The resulting anemia is said to be the most profound of any anemia, except pernicious anemia.

The treatment according to Moynihan, who treated 22 cases successfully, is the simple application of a posterior enterostomy. His idea is that in such cases the drainage and rest afforded the stomach is sufficient to control the hemorrhage. Robson, on the other hand, says that the stomach should be opened and the bleeding points searched for and the mucosa ligated en masse. F. G. Connell reports one case in which death ensued after a simple enterostomy. At the post-mortem he found that his surgical mechanics were absolutely perfect; that the union between the stomach and jejunum was water tight yet the intestines were found filled with decomposed blood, showing that the patient bled to death in spite of a gastro-enterostomy that was entirely above suspicion.

It has been stated that after opening the stomach for the treatment of a condition of this kind there is one of nine procedures that the operator is at liberty to adopt, such as ligation, cauterization, application of astringents, etc. Another peculiar feature in this connection is that the mortality in all these acute cases of hematemesis is low; that 95 to 97 per cent. recover with proper medical treatment. Now, these figures do not apply to post-operative cases. Purvis, of Edinburgh, Scotland, reports 37 cases in which he made a complete analysis, and in this series 79 per cent. were fatal.

So far as cases of vicarious menstruation are concerned, Peterson operated on three cases, all of which proved fatal. The idea I wish to convey is that in these cases of acute hematemesis, without preceding history, medical treatment is valuable in 95 to 97 per cent., while in post-operative hematemesis the patient usually dies, no matter what means are adopted.

Dr. J. E. Cannaday, Paint Creek, W. Va.: While I have not done any research work along this line, yet I wish to call attention to a few points. The science of treating this class of diseases on the stomach, especially gastric ulcer and dilatation, is yet in its infancy; it is largely in the experimental stage. A great deal of work has already been done.

One of the essayists spoke of the comparative scarcity of these cases in the negro. In my service in the Sheltering Arms Hospital of West Virginia we treat quite a number of negro patients, approximately one hundred a year. I have had about 300 negro patients come under my observation, and I have seen only three cases of typical gastric ulcer, making only about one per cent. The percentage of occurrence of gastric ulcer in the white race is much greater than that. As we all know, the negro is very subject to tuberculosis and syphilis, and it is only fair and just that he should possess immunity to something.

The only case of Finney's operation done for

the practical obliteration of the pyloric orifice that came under my observation was an absolute failure, the patient going on from bad to worse. I think most of us will agree with Dr. Wathen that the operation of the future, one that will give good results is that of Moynihan or that of Kocher. The elastic ligature of McGraw or the twine method advocated by a Washington surgeon and demonstrated by him before the Surgical Section of the American Medical Association at the Atlantic City Session will, naturally, save a great deal of time, and for that reason will be very applicable to the eleventh hour cases, moribund cases, in all cases where we wish to save time. Of course, the suture method, or the use of Pagenstecher's celluloid thread will take a little longer.

Objection was made to the mortality of gastric ulcer when treated surgically. After the exploratory opening is made and the organ is examined, the surgeon can make a positive diagnosis; whereas the medical man cannot make a positive diagnosis in all cases; but they are all typical cases of gastric ulcer, and for that reason he has a higher mortality. The mortality of gastro-enterostomy, as performed by inexperienced men on eleventh hour cases will naturally be high, but the mortality among operators who have made a specialty in that line of work, who select their cases properly, and who know how to do everything for the best advantage of the patient, is very low. The Mayos have a most wonderful record in that respect.

Dr. J. T. McClymonds, Lexington: Any man who claims that he can make a diagnosis of all stomach conditions by means of a gastric analysis is a charlatan. But gastric analysis is one of the greatest aids in arriving at a diagnosis, and we cannot dispense with it. In gastric ulcer gastri canalysis is not only an aid in the diagnosis of the condition, but also in its treatment. The vast majority of these cases have a marked hyperchlorhydria, and the surgeon who says that a gastric analysis is not essential never made one, and does not understand a gastric analysis when it is made for him.

The same state of affairs existed with reference to the diagnostic value of leucocytosis. No less a man than Deaver, than whom there is no greater, failed to grasp the point made by the laboratory men and rushed into print with an article on the uselessness of blood counts, And so it is with gastric work. Given a case treated for gastric ulcer, where a diagnosis has been made, the knowledge of the existence of hyperchlorhydria is essential. It must be relieved, no matter if the patient is on an absolute rest cure. That was shown by Stewart, of Philadelphia, who stated that if he had used alkaline treatment in one case, he would have one less perforation to his credit.

Another point. It is often impossible to make a diagnosis of ulcer. There are cases in which there exists adhesions from an acute pancreatitis

or from an inflammation of the gall bladder, which make it impossible to diagnose the condition, etc. The surgeon says that when he operates he always recognizes the condition. He does not. He merely does a gastro-enterostomy and if the case gets well he says it was one of gastric ulcer. No surgeon will in every case look for a gastric ulcer. Often at post-mortem examination it requires a most minute and careful search to locate the ulcer, and sometimes the microscope is called into play.

I am very much in favor of surgical interference. I believe that the day has come when every case of gastric ulcer that does not improve within six weeks under proper medical treatment should be given the benefit of what doubt there is and have an exploratory operation, and if necessary, a gastro-enterostomy. The surgeon, like the general practitioner, shows rather dense ignorance of stomach conditions, in a way. His diagnosis of ulcer is based on the existence of hemorrhage. I believe that there is not one case in ten diagnosed by the general practitioner as gastric ulcer in which hemorrhage has not occurred. We know that hemorrhage occurs in only 50 per cent. of all cases of gastric ulcer, hence the fallacy of such a diagnosis. In fact, many cases go on to recovery without any treatment whatever. That is shown by post-mortem examinations. Where proper treatment is instituted at once in cases of gastric ulcer, there will be very few cases that must be referred to the surgeon for operative treatment.

Dr. Curran S. Pope, Louisville: I am one of those who come under the soft impeachment of making gastric analysis. I have made between four and five thousand, and I shall continue to make them. Dr. McClymonds has so ably discussed the importance of the gastric analysis in the diagnosis of gastric ulcer, that I shall not take up your time further, but shall consider, for a moment, the question of treating gastrectasia, weakness of the gastric muscle. Surgeons tell us that these cases, after being intelligently treated for a while develop such a condition that they do not get well. Gentlemen, I say to you, just as Dr. McClymonds said, that the question resolves itself into what is "intelligently treating" weakness of the gastric muscle. If we have an obstruction or a growth at the pylorus there is no possibility of any treatment overcoming that, and it resolves itself, strictly and purely, into a surgical case and then it should be operated on. But when we come to the question of treating gastrectasia, and treating it intelligently, we must stop and consider what we are dealing with.

We have to deal with three conditions: secretory disturbance, muscular disturbance and general internal conditions. If your arm is weak, so that you cannot raise it, what is the first thing that you do? Operate and replace the muscles so that you will be able to raise the arm, as has been suggested in cases of long-standing poliomyelitis? No. You use the faradic current and

develop those muscles so that you can use them again. Now when you come to treat a case of gastrectasia you must consider that you are dealing with a diseased structure whose function is not only a chemical, but a physical one. You must pay attention to the gastric muscle while at the same time taking care of the secretory function of the stomach.

How shall such a case be treated? Get down to the fundamental trouble. Develop the gastric muscle. You can do that sometimes by external applications, directing the faradic current through the body, or, what is better, by introducing into the stomach the sinusoidal current, sometimes the faradic, and sometimes, the high frequency current, and in that way you can actually produce contractions of the gastric muscle. Not infrequently you will find weakness of the muscle combined with hyperchlorhydria. By improving the chemical condition of the gastric secretion and by strengthening the gastric muscle, as well as improving the general condition of the patient, you have to turn over to the surgeon only those cases in which there is an actual obstruction at the pylorus.

Dr. Lucas, closing the discussion on his part: Like Dr. McClymonds and Dr. Pope, I believe in surgery of the stomach, but I am convinced that we do not know enough about this matter at the present time to say, arbitrarily, that every case of gastric ulcer should be operated on. These men do excellent anterior and posterior gastro-enterostomies, but we have not gone far enough yet to state positively what the results of these operations are. Milton, of London, reports fifteen cases in which a gastro-enterostomy was done, with a recurrence of the ulcer in nine.

It may be true that ninety per cent. of gastric analyses amount to nothing, but, I think, Dr. Wathen does not take into consideration the thousands of analyses made and the many patients who have been relieved. I believe that in every case of gastric ulcer the patient should be confined in bed for three or six months, but for four or five or six weeks, and that if the symptoms have not disappeared, I would put him back to bed again for another rest cure; and if after another six weeks, the symptoms have not disappeared, I would call in my surgical friend and discuss a gastro-enterostomy.

It is rather difficult, however, to get the patient to consent to an operation. He comes to you, has no temperature, but feels uncomfortable. You suggest an operation, and he wants to know the reason for doing so. You explain them, and he at once decides against an operation. It is different with appendicitis. The laity have been educated to think of appendicitis as a terrible disease, and they are also being educated to the fact that in times past too many appendices have been removed. It is well enough to say "one and a half inch incision, and one and a half week in bed," but too many of these cases do not recover. The same is true of these stomach cases. In

many cases a gastro-enterostomy was done and no ulcer was found. If an obstruction at the pylorus exists, surgery will give relief, but that does not exist in the majority of cases.

Gastric analyses are of great value in the majority of cases, but according to the surgeon, all cases have a hyperchlorhydria and are operated on without further question. Putting the patient to bed, giving him soft foods, and suitable drugs such as nitrate of silver, bismuth subnitrate and olive oil, we can do much for these cases. But the surgeon ought not to say to the general practitioner that he is responsible for the unfavorable outcome in many of these cases; that if he had brought this patient around a little sooner, a gastro-enterostomy could have been done, and probably with success.

Dr. Woody, closing the discussion on his part: As to operations, I do not express opinion. I do not let the surgeon have any patient until I think it is to the patient's interest; until I feel I have done all I can and have not effected a cure. My own efforts failing, I turn the patient over to the surgeon. Perhaps I should do so sooner, but I think not.

Dr. Lucas criticises my keeping the patient in bed three to six months. I too have cured cases in two to three weeks. I recently cured a case twice in about two months. I did not tell him he was cured. He and his friends thought it and, contrary to my advice, he went back to work. Another physician has cured him since then. The surgeons will get that fellow yet unless he gets wise enough to allow himself to be put to bed, dieted and treated till thoroughly well. In my paper I gave the results of my experience. Perhaps many of you can do better; I cannot and have not.

Dr. Schachner, closing the discussion: I believe this is the liveliest question before the profession to-day. From time immemorial we have treated ulcers of the leg surgically. For many years, until quite recently, we treated ulcers of the stomach medically. The question arises, why do we treat the one surgically and the other medically, when both conditions are essentially the same process. The one is a very accessible process and the other, until recently, was a very inaccessible process, and, therefore, we did the best we could. But the conditions have changed, and it is time that we changed our treatment to correspond with the conditions present at this time. We must change our views, whether we wish to do so or whether we do not.

Dr. Hendon seems to have been going after the exceptions rather than after the rule. When we draw deductions, we must do so from many cases; we cannot pick out the exceptions. We can support anything in medicine and get quite a number of cases to support our views and contentions.

As to gastric analysis. I am sorry that I did not have time to read the details in my paper bearing on that point, because I do believe in

very careful examination in every stomach case, but I do not believe in hanging on to it until it is nearly dead and then operate. Because I know little or nothing about this question, I quoted the views of men who do know something about it. The great difference between the surgeon and internist is this. The internist on being called to see a case considers the symptoms, makes an examination, arrives at a diagnosis and then outlines the treatment which he thinks is indicated in that particular case. The case improves, gets well, and then the internist gets up and makes the statement that he has treated so many cases of such and such a condition with favorable results. Maybe he is correct, but he has no way of proving it. His diagnosis may have been wrong, and the case may have gotten well in spite of him, but he does not know it. The surgeon, on the other hand, opens up the abdomen, he has an opportunity to see and inspect the field and when he makes a diagnosis it is because the evidence is before him. To say that in the majority of cases it is difficult to see the evidence of ulceration is a mistake. There is the obstruction of the pylorus, if the ulcer happens to be in that locality; we see the opaque spots through the walls of the stomach; we see adhesions and sufficient other evidence, without looking very far, in the majority of the cases.

Dr. Lucas spoke of risks. I do not think that he is competent to speak of a surgical risk. That question should be discussed by the surgeon, the man who has had experience with risks. The man who does not operate is not the man to explain risks to the patient. That should be left to the surgeon.

A GREAT WORK—WHAT A COUNTY SOCIETY MAY DO.

The following letter from one of the leading surgeons of Indiana contains so much of interest to county societies, indicating what may be done in any section where as many as three or four wide-awake men can be gotten together, that we are glad to put it before the profession. "What one man has done, other men can do." Which of our counties will be the first to fall in line in as good work?

Valparaiso, Ind., Dec. 21, 1905.

Dr. J. N. McCormack,

Chairman Com. on Organization.
Bowling Green, Ky.

Dear Doctor:

Your letter asking me to elaborate our plan of Post Graduate work here, with the view that such an account may be used in inducing other medical societies to do likewise has been received.

I am greatly pleased to have the privilege to do this, not only for your personal gratification, but for the reason that I am confident that it will redound to the very great benefit of such societies as deem it wise to adopt our

plan, as well as to the individual members. It will enable them to do better and more efficient work for the public as a whole, and aid each individual physician in rendering the best possible service to the unfortunate sick.

Our work was begun two years ago by getting every physician interested in becoming more familiar with scientific and practical knowledge which would be an advantage to him at the bedside, and which would broaden him as a physician. With this end in view, we rented a room, formed a club, and endeavored in every way to appeal to and build up the social, scientific, and material spirit and welfare of the profession. From every point of view I desire to report that we have been eminently successful.

In carrying out this plan we divided our work in such a way that each physician was required to act as a teacher of some special subject, and all the others took their places as students once more. Anatomy and Surgery was assigned to one, Physiology and Practice to another, and so on through the list of subjects, one fundamental and one practical branch to each teacher. Our meetings were held twice a week, regular lessons were assigned, and we were expected to be present and give one hour's time to the recitation and study of such subjects as were assigned to that evening. In this way we were enabled not only to exchange individual views as to what we believed, but could always have some good medical authority to place us right if it was found that we were wrong. This plan proved very desirable, and we soon learned that the teacher of the topic derived far greater benefit from his course, for the reason that he was required to study more to hold his ground, often against the combined opinion of his class.

After going along in this way for a time it became apparent that our faculty should be changed from time to time, in order that the teachers should become proficient in more than one subject. I desire to report to you that we found this most satisfactory, and that it has resulted in a marked improvement in the attainments of every member of our profession, which means of course of the profession as a whole.

The social feature of our plan has done as much, if not more, for the good of the profession, as the scientific work. I am now able to say that we have no one in this country not on the most friendly terms with each other, and that such condition is because they actually desire to be friendly.

In addition we have kept up our regular society meetings, always with increased interest, and although ours is not one of the large counties, I feel safe in saying that we have one of the best, if not the best, society in the State of Indiana, and we are resolved to go on and

make it still better.

In connection with this work, it did not take us long to determine that, in consideration of the increase in the cost of living in recent years, we were not being adequately paid for our services, and we concluded that it was only just that the scale of fees should be increased one-half. In order that this might be uniform we all signed the schedule, definitely fixing the price of services for both day and night and had this published. It went into effect without a single ripple and has been strictly maintained. I have never heard a complaint on the part of the public or of the agreement being violated by any member. In fact the public seem to understand the necessity for the change, largely for the reason that it knew we were making an heroic effort to give the people better service. The results have been that our incomes have been increased by one-half, and that night work has been reduced to a minimum, giving us the evenings for post-graduate work and to spend with our families. While we have not accomplished all that we set out to do, we have certainly made rapid progress, and are not to stop or falter until our ideals are attained.

Probably this very crude plan might be greatly elaborated and improved, but it has worked so well, and given such universal satisfaction here that I am sure none of us would be willing to disturb our present satisfactory condition.

Should you be able to use what we have done as an incentive for others, or to elaborate it for the promotion of medical organization, you will have the very best wishes of every member of our profession in doing so. With personal best wishes, I am, most sincerely yours,

DAVID J. LORING, M. D.

KENTUCKY ASSOCIATION OF STATE RAILWAY SURGEONS.

Lancaster, Ky., Dec. 4th, 1905.

On November 6th, 1905, Dr. R. C. Falconer, of Lexington, Ky., mailed circular letters to the Railroad Surgeons in the State requesting them to meet in the Court-house at Lexington, December 1st, at 11 o'clock A. M., for the purpose of organizing a State Association of Railway Surgeons.

In response to that call, forty surgeons were in attendance at the designated time and place and proceeded to organize.

Dr. Falconer called the meeting to order, and explained the object of the meeting.

Upon motion he was made temporary chairman, and Dr. J. B. Kinnaid, Secretary.

A committee composed of Dr. M. Dills, of Carlisle, Dr. Geo. E. Davis, of Lawrenceburg, and Dr. John W. Scott, of Lexington, was

appointed to draft the constitution and by-laws.

After a short conference they reported the following articles, which were adopted:

CONSTITUTION.

1st. The object of this Association is the organization of the Railroad Surgeons of the State of Kentucky for the study of scientific problems, especially those that are peculiar to their work.

2nd. The name of the Association shall be The Kentucky Association of Railroad Surgeons.

3rd. This Association shall have a President, a Vice-President, and Secretary-Treasurer, who shall be elected annually.

4th. Any Railroad Surgeon, in good standing, shall be eligible for membership; a vote of two-thirds of those present shall be necessary to elect a petitioner.

5th. The control of this Association shall be vested in an Executive Committee, composed of three, the President, Vice-President, and Secretary-Treasurer.

6th. A Credentials Committee composed of three members, to be appointed by the President, shall pass on petitions for membership.

BY-LAWS.

1st. This Association shall convene upon the call of the President or one-fourth of its members.

2nd. The dues shall be one (\$1.00) dollar per annum, payable in advance.

3rd. The place for meeting the following year, shall be determined by the Association at each annual meeting.

4th. The mode of procedure of this Association shall be governed by the parliamentary rules set forth in "Roberts' Rules of Order."

5th. The scientific program shall be arranged by the Executive Committee.

Dr. R. C. Falconer, of Lexington, was elected President; Dr. H. C. Vaught, of Richmond, Vice-President; and Dr. J. B. Kinnaid, of Lancaster, Secretary-Treasurer by acclamation.

A committee was appointed to select a place of meeting for next year, and upon invitation of Dr. Vaught, Richmond was chosen.

The Association will meet June 6th, 1906.

No better selection could have been made, as Richmond is one of the most charming places in Kentucky for medical conventions, and all anticipate a delightful time next June.

After adjournment the members of the Association were tendered a delightful dinner at the Phoenix Hotel by the local railroad surgeons of the city of Lexington. The pleasant occasion will be long remembered by the fellows of the Association, and their thanks are due the local members for many courtesies.

J. B. KINNAID, Sec-Treas.

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PEACE ON EARTH, GOOD WILL TO MEN.

At this time of year the fatted calf is killed, the yule log burns and crackles in the wide-mouthed chimney place (or at least it did before this abominable natural gas was introduced), old Chris Kringle wears a broad smile on his good-natured face, and all the world breathes of peace and good will. It is time for us of the medical profession to search our hearts and purge them of any envious and censorious monsters which may have found lodgment there, of all hate and intolerance of our brothers, and to install in place of these, good will, a determination to seek the better man in others, to develop the better man in ourselves; to regard the imperfections of others with gentle instead of acrimonious consideration, to realize and correct our own frailties and shortcomings.

As none of us are or can be perfect, and without fault and professional sin, let us say with the Great Teacher, "Let him who is without sin cast the first stone." If this admonition were adhered to, there would be no stones. And if we should add the further admonition, that all who search their hearts and find sin therein should dodge when a righteous stone is cast, surely the ducking of heads would be as though some one had creid, "low bridge!"

Most of the troubles from which doctors suffer are of their own making, and are remediable. One of the great purposes of the organization of the medical profession is the correction of such troubles.

Let us bear in mind that we reap what we sow, that we harvest that which we tend; that we get back what we give out, oftentimes multiplied an hundredfold. If we give out hate, envy, malice, these come again to us to dwell with us, to blot and blight our lives. If we give fully of good will, and cheer and love, these in turn become as part of ourselves, to travel with us and illuminate our countenances with a light which helps wherever it shines.

The king of all is love, and the handmaidens are truth and moderation—truth, which compels us to raise our voices against all faults and evils, and moderation which permits us to do this without leaving an unnecessary bitterness and sting behind.

In the coming year let us keep always in our minds the words of Stevenson:

"The day returns and brings us the petty rounds of irritating concerns and duties. Help us to play the man; help us to perform our tasks with laughter and kind faces; let cheerfulness abound with industry. Give us strength to go blithely on our business all this day. Bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep!"

OUR ADVERTISERS.

With this January issue of the Journal we point with some pride to our advertising pages. Unlike the editor of one of the great eastern weekly medical journals, who, when taken to task for the sins of his advertising columns, grandiloquently replied that he took no cognizance of what occurred in that part of the journal, we profess great concern and great interest in our advertising columns. We believe that a journal assumes a certain kind of responsibility for everything carried in its advertising pages, and that it should be able to say to its readers: "We have used every reasonable means to determine that the things advertised in our columns are ethical, and they can be used in the confidence that they have been proven to be as represented."

As has been pointed out before, it is sometimes a difficult matter to know whether an article offered for advertisement is ethical. For this reason the Council of Chemistry and Pharmacy A. M. A. was organized, and in accordance with its decisions will be the acceptance of advertisement in future by the State Medical Journals, as well as by the Journal A. M. A.

A few preparations will remain in doubt until such action is taken by the Council, and these will be carried tentatively until their status may be determined.

The following letter from Mr. Yerkes explains itself:

Washington, Dec. 21, 1905.

Dr. James B. Bullitt, Secretary:

I have the honor to acknowledge receipt of your letter of December 19th, in which you kindly submit to me the resolution adopted by the House of Delegates of the Kentucky State Medical Association at its annual meeting held recently in Louisville, and which resolution commends a regulation recently issued by me

with regard to the payment of special tax by manufacturers and dealers in patent medicines, same being largely alcoholic compounds without the addition of drugs sufficient to give real medicinal value and efficiency to the compound.

I assure you it is a matter of sincere gratification to me to know that any action of mine meets with the approval of the physicians of my home State.

Please express my thorough appreciation of the passage of this resolution, and with especial thanks to Dr. Mathews and yourself, I am,

Respectfully yours,

JOHN W. YERKES, Commissioner.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The 40th regular meeting of the *Anderson County Medical Society* was called to order at 2 P. M. Dec. 4th, 1905, by the President, Dr. J. L. Toll.

The Secretary, Dr. G. E. Davis, being absent, the reading of the minutes of the last meeting was dispensed with, and Dr. G. D. Lillard was appointed Secretary pro tem.

Dr. A. P. Wright, on the programme for a paper on "Haemoptysis" being absent, the next paper, "Tonsils" by Dr. C. W. Kavanaugh was called.

This was a most excellent paper, the first part being devoted to the histological and pathological anatomy, and the second to the acute diseases, of the tonsils, it being the intention of the author at some future time to take up the chronic affections.

The discussion was opened by Dr. J. L. Toll, and carried on by Drs. Lillard, Paynter and Pinder.

Following this came the regular election of officers.

Dr. G. D. Lillard was elected President; Dr. A. P. Wright, Vice-President; Dr. L. Otley Pindar, Secretary and Treasurer; Dr. G. D. Lillard, Representative to the House of Delegates.

The election of Dr. Lillard as President causing a vacancy on the Board of Censors, Dr. J. L. Toll was appointed in his place, the Board now standing—Dr. C. W. Kavanaugh, Chairman; Dr. C. M. Paynter, Dr. J. L. Toll.

On motion, the meeting was adjourned.

L. OTLEY PINDAR, M. D., Sec'y.

* * * *

At the December meeting of the *Boyd*

County Medical Society, the following resolution was adopted:

RESOLVED, That it is the sense of this Society to endorse the action of Collier's Weekly, The Ladies' Home Journal, and the Farm Journal, for the firm stands they have taken in their endeavors to expose the rottenness, humbuggery and misrepresentation of so many of the so-called patent medicine manufacturers in their efforts to mislead the people in the purchase and use of their widely advertised, but worthless remedies such as Peruna, Swamp Root, etc. Also for their refusal to advertise these and other nostrums, and that our Secretary be instructed to forward a copy of this resolution to the publishers at once.

The following officers were elected for 1906, viz: J. M. Prichard, President; L. T. Hood, Vice-President; Smithfield Keffer, Secretary; A. T. Henderson, Treasurer; W. A. Berry, Censor for three years; J. D. Mutters, Censor one year to fill out Dr. Hood's term, S. W. Moore, Delegate.

SMITHFIELD KEFFER, Secretary.

* * * *

At the meeting of the *Bourbon County Medical Society* with Dr. Jno. A. Gilkey, at North Middletown, in August, a resolution was introduced, which carried, authorizing the President to appoint a "Grievance Committee" consisting of five members, any three of which should constitute a quorum, the duties of which should be to inquire into, take testimony and settle differences between members of the Society in their inception, instead of having to report these cases to the Board of Censors, with the additional power of reporting proper cases to the Censors or to the Society for proper action. This committee made its first report to the September meeting at Millersburg, where we had a very enthusiastic meeting, and where we were lavishly entertained by Dr. W. F. Huffman with a seven o'clock dinner.

Dr. W. H. Dailey, dentist, entertained the Society with an elaborate dinner in his new residence on Mt. Airy Avenue on Thursday, October 12th, in honor of Dr. Ed N. Ketting, of Louisville, of the Louisville College of Dentistry. At the meeting in Dr. Dailey's suite of offices, Dr. Ketting read an interesting paper on "The Care of the Teeth During Pregnancy." At the same meeting Dr. Barclay Stephens of San Francisco, Cal., gave some very timely remarks, suited to the general practitioner, on eye, ear, nose and throat diseases.

The attendance of twenty-three out of thirty members shows the interest of our County Society.

Dr. E. L. Stevens, dentist, will entertain us at his residence on Thursday, November 16th.

Program and account of meeting will follow.

C. G. DAUGHERTY, Secretary..

* * * *

The Christian County Medical Society met in Hopkinsville November 20th, 1905, at the Sanitarium, corner 7th and Clay streets, as guests of Drs. Petrie and Blakey. Meeting was called to order by the President shortly after eleven o'clock. There were about thirty-five physicians present as follows:

Members—Sargent, McDaniel, Stone, Austin Bell, D. E. Bell, Blakey, Haynes, Woodward, Thomas, Jackson, Paine, Grace, Harned, Stites, Petrie.

Visitors—Bell, Williams, Bacon, W. S. Petrie, Trabue, Forgy, Ketchum, Young, Anderson, Frey, Gowers, Barker, Paine, W. H. Lacky, Edwards, Roscoe, Harris, Cook, Brown.

Reading of minutes of previous meeting was postponed. Dr. Sargent then read a very interesting and instructive paper on "Pleurisy, its Diagnosis and Treatment," which was thoroughly discussed by those present. After discussion the Society adjourned to the dining-hall, where an elegant repast was served.

No regular meeting after dinner except social gathering and smoker.

J. W. HARNED, Secretary.

* * * *

The Fayette County Medical Society met December 18th, in its room at the Public Library, to hold its regular annual election of officers. The following were elected:

President, John Scott; Vice-President, G. E. Muir; Treasurer, C. W. Norris; Censor, T. S. Lewis.

The Secretary, W. H. Smith, was re-elected.

The Society voted to thank, through its Secretary, the Lexington Herald, for its complete and unselfish report of Dr. Knoff's lecture. (Dr. Knoff recently spoke to the public here upon the tuberculosis question). Dr. Knoff remarked while here that so far, no newspaper in the United States had given a complete report of his lecture including the part referring to patent medicine. The people of Lexington are proud to have such a paper as the Lexington Herald, which does not allow itself to be dictated to by the Proprietary Association of America, which is the patent medicine trust.

Dr. Sprague advised the Society to take some steps against the patent medicine evil in Lexington, as some of the druggists here are making themselves especially obnoxious to the medical profession by the way they push the patent medicine cause, and use every opportunity to cast a slur upon the regular profession.

W. H. SMITH, Sec'y.

* * * *

The Franklin County Medical Society met

at Capitol Hotel, December 2nd, and was entertained by Dr. Warren Montfort, the retiring President. The following members were present: Drs. Demaree, Garrett, Williams, Mastin, Montfort, Ely, Minish, Hume, Allen, and Dawson.

The Society had the pleasure of having as a guest Dr. Austin, of Bagdad, who was unanimously elected as honorary member.

A communication from Kenton-Campbell County Medical Society, relating to the passage of a bill by the coming legislature for the protection of the physician on the witness stand, was read and ordered filed. Dr. Montfort, the essayist, read a most instructive paper on "Post and Ante-partum Hemorrhage," which was discussed at length by all present.

Dr. W. B. Dawson was elected to membership in the Society.

The officers elected for the coming year were: Dr. U. V. Williams, Referee; Dr. L. T. Minish, President; Dr. N. M. Garrett, Vice-President; Dr. F. W. Mastin, Secretary-Treasurer; Dr. O. B. Demaree, Delegate to State Medical Society.

Program for the next six months made out and approved.

A poem entitled "Two Kinds of Doctors," composed and read by Dr. Williams, was received with hearty applause and ordered put upon record. The society tendered a vote of thanks to all outgoing officers in general, and Dr. Montfort in particular.

There being no further business, the meeting adjourned.

F. W. MASTIN, Sec'y.

* * * *

The Harrison County Medical Society met December 31st with Drs. Meek and Ecklar, at the offices of Dr. J. W. Boyd. Dr. M. McDowell read a paper on "Commercialism in Medicine," which was thoroughly discussed by several members of the Society.

The officers elected for the ensuing year were: J. E. Wells, President; L. T. Ecklar, Vice-President; J. M. Rees, Secretary; W. B. Moore, Treasurer. Board of Censors, Drs. Smiser, Phillips and Barclay. Dr. W. H. Carr was held over from last year as delegate to the State Association.

After the transaction of miscellaneous business, the Society adjourned for lunch to meet with Dr. M. McDowell, on January 1st.

* * * *

The Jefferson County Medical Society held its annual meeting for the election of officers at the Galt House on the evening of December 19th. The following officers were elected for the ensuing year:

President, Dr. John J. Moren, Secretary, Dr. J. Hunter Peak; Treasurer, Dr. Edward Speidel. Executive Committee, Drs. J. R. Wathen, J. R. Morrison, and G. A. Hendon.

Members of Judicial Council, Drs. Ap Morgan Vance, and J. W. Guest.

The President immediately appointed the following committees:

Committee on Program — Drs. August Schachner, James B. Bullitt, and Hugh R. Manning.

Committee on Pathological Specimens — Drs. Charles W. Hibbitt, and Dunning S. Wilson.

The Society had a general discussion in regard to ways and means in making the meetings of the Society more attractive and stimulating a working interest. On motion of Dr. Louis Frank, a resolution was passed that the Executive Committee make recommendations for such changes in constitution and by-laws as would have this effect. These recommendations are to be reported to the next meeting of the Society.

* * *

The Henderson County Medical Society met for the regular business meeting, December 11th, 1905, in the office of the Secretary. The following officers were elected for the ensuing year:

President, Dr. D. O. Hancock; Vice-President, Dr. Cyrus Graham; Secretary-Treasurer, Dr. Silas Griffin; Delegate, Dr. Arch Dixon; Alternate, Dr. J. C. Moseley.

Board of Censors, Drs. J. T. Bethel, J. H. Letcher, and W. S. Forwood, all of Henderson. SILAS GRIFFIN, Sec'y.

On December 6th, the *Todd County Medical Society* elected the following officers for 1906:

President, W. H. Forgy, Fairview; Vice-President, R. L. Boyd, Pembroke; Secretary, L. P. Trabue, Elkton.

After the business meeting, we were entertained at a banquet given by the Society at the hotel in Elkton.

We regret very much to give up our former Secretary, Dr. T. E. Bruce, who will leave in a few days for the West. He has been a true and faithful officer and member of the Society since its organization.

Our Society is doing good work, but we hope to do even better in the future.

W. H. FORGY, Sec'y.

* * *

The Simpson County Medical Society met in regular monthly session at the Court-house in Franklin on Tuesday, December 25th, the main business of the meeting being the election of officers for the year 1906. The following were elected:

President, Dr. W. A. Guthrie; Vice-President, Dr. W. H. Williams; Secretary-Treasurer, Dr. G. R. Jones, member Board of Censors for the next three years; Drs. J. C. Douglass, J. W. Hays, G. R. Jones, and F. London, were recommended to the State Board of

Health for positions on the County Board of Health for Simpson County for the next two years.

The membership of the Society is now larger than at any time since its organization, and prospects for the future are much brighter than they were a few months ago. The next meeting of the Society will take place on next Tuesday, January 2nd, at 1:30 P. M., in the County Court-room.

G. R. JONES Secretary.

* * *

The regular annual meeting of the *Warren County Medical Society* was called to order by the President, Dr. J. H. Blackburn, at Webb's Hotel at 12 o'clock.

The Committee on Post-Graduate Work reported that all the members of the Society were favorable to such a course, and the President was directed to appoint a committee with himself as Chairman, who should have full power to arrange programs for weekly meetings of such of the members of the Society as desired to take part in the class.

Upon motion the election of officers was then taken up, Dr. H. P. Cartwright was elected President; Dr. D. B. Campbell, Vice-President; and Dr. A. T. McCormack, Secretary and Treasurer. Dr. W. C. Simmons was elected member of the Board of Censors to succeed himself. The other two members being Drs. Neale and Rogers.

After partaking of a splendid dinner, Dr. J. H. Souther, of Three Forks, read a paper on *tuberculosis*, as follows:

The consensus of modern scientific opinion teaches us, that consumption in its early stages is readily curable and much more readily preventable. Tuberculosis is distinctly a disease of civilization, of housing and confinement. The caged beast, the prisoner in his convict cell, the poor in crowded tenements, are especially liable to it. It is unknown among wild animals living in a state of nature. The American Indian, the African Negro, only succumb to the disease after becoming partially civilized. These facts bring us to the method of prevention, and the main feature in this prevention is, the education of the laity. If the disease is once fully developed, the remedial agents heretofore employed have proven so disappointing, as to render even the rank and file of the profession skeptical in their administration. Remedies have been heralded in rapid succession, each having its hour to strut across the stage, its votaries to yield it faith, but experience has overturned them all without any sort of remedy which approximates a specific. We use cod-liver oil, the hypophosphites, arsenic, and iodine rather indiscriminately when we suspect consumption. For fever, we use creosote, and atrophine for

night sweats; astringents and antiseptics for diarrhoea.

The outdoor treatment with plenty of sunshine together with nutritious diet, especially if undertaken early, has proven more satisfactory than all the other modes heretofore advocated.

The Sanatorium treatment in the climate in which the patient expects to live, gives him by far the best chances of recovery. In such an institution the patient spends from nine to ten hours in summer, and six to nine in winter in the open air. The bed-room windows are kept open winter and summer. He is given a mixed diet of wholesome food, properly prepared, and encouraged to eat as heartily as his digestive capacity will permit. If the disease is active, he is kept in absolute rest, lying on his cot in the open air, warmth being maintained by cover, and, if required, hot stones to his feet. In the quiescent stage, moderate exercise is encouraged, but every precaution is taken to guard against fatigue. With these facts before us, I desire to urge upon each of you the necessity for your hearty co-operation with our distinguished colleague, the Secretary of the State Board of Health and the Committee of the State Association on Legislation in their efforts before the Legislature to procure an appropriation for the erection and maintenance of a sanitarium where the unfortunate victims of the "Great White Plague" can secure this mode of treatment which has proven so successful elsewhere in this country and abroad.

Dr. D. B. Stone opened the discussion by saying that he had never seen a case recover, in which he was able by microscopic means to diagnose the case.

Dr. A. T. McCormack emphasized the importance of early diagnosis. He told of Williams' wonderful work in early diagnosis with the X-Ray where he was able to establish the diagnosis from four to six weeks before he could detect physical signs in the chest. He made a plea for the use of modern means of diagnosis. Dr. W. C. Simmons said that it was very interesting to note in connection with the discussion of the subject, something of the ancient history of tuberculosis, and of the men who wrote it; and at the same time it is a lamentable fact that there has been less progress made in prevention and cure of consumption than of any other disease. In the year 50 A. D., 400 years after Hippocrates, Areteus was wise enough to know that the only plan of treatment was *hygienic* and *dietetic*. Some of his writings read as if written but yesterday. In fact, some of his recommendations would have been properly embodied in the excellent paper of Dr. Souther to-day. One of his biographers says of him, "He had the rare faculty of delineating more of the morbid phenom-

ena of diseases in a short space than some of our modern authorities can in a long treatise." It is true, we know more of the pathology of the disease to-day, but from a clinical standpoint, we possess no advantage. Some of the recommendations of this Capidocian physician 1,855 years ago, are in perfect keeping with those recommended by Dr. Knopf in his excellent paper read before the National Anti-Tuberculosis Association and very recently published in the Medical Record, New York. For example, Dr. Areteus said: "If the patient have it fortunately at his command—gestation and living on the sea will prove beneficial. Sea water contributes something dessicant to the ulcers. The patient should be anointed with fat oil." Now as to diet, he exclaims—"Milk sufficeth in place of all food, easy to drink and gives solid nourishment. Eggs fresh from the hen in a liquid state, hot from the fire," are his chief recommendations. And how strikingly like those of our present day authority! As before stated, it is a lamentable fact that we are but little better prepared to meet this ever present foe than the fathers in medicine centuries ago, though, it is gratifying to note the wide-spread movement recently of organized bodies of physicians and laymen for the prevention and cure of tuberculosis.

The President announced the committee to arrange a post-graduate course and arrange for a club-room for the Society:

Dr. J. H. Blackburn, Chairman; Dr. A. T. McCormack, and Dr. F. D. Cartwright.

All members joined in a free discussion of the business aspects of practice. The evils of rate cutting were noted, and it was especially emphasized that the men who charge small fees, did so because they were worth very little. It was insisted upon that such doctors be urged to take post-graduate courses, and so improve themselves that they might be worth more to their patients. Twenty-six members of the profession were present at one of the most successful meetings the Society has ever held, and all but one of those paid their dues for the next year. Very respectfully,

A. T. M'CORMACK, Sec'y.

* * *

Morganfield, Ky.

The Union County Medical Society met in regular session, Wednesday, December 6th, in this city, with the President, Dr. S. S. Anderson, of Sullivan, in the chair, and the following members present:

Drs. T. P. Grey and W. H. Hardesty, of Waverly, Dr. J. A. Watkins, of Hitesville, Dr. J. W. Conway, of Spring Grove, Dr. D. M. Sloan, of Grove Center, Dr. S. L. Henry, of Seven Guns; Drs. Iloff Harris and H. B. Stewart, of Boxville; Dr. T. J. Shoemaker, H.

B. Allen, L. C. Adcock, W. A. Richmond, and R. H. C. Rhea, of Morganfield.

We had the pleasure of having with us Dr. C. Z. Aud, President of the Kentucky State Medical Association; Dr. D. M. Griffith, of Owensboro, President of the Ohio Valley Medical Society and Councillor for this district, and Dr. J. E. Johnson, of Waverly. The meeting was promptly called to order at 1:30 P. M. by the President, who introduced the Hon. J. T. Pride, Jr., Mayor-elect, who delivered an address of welcome in behalf of the citizens of Morganfield, and extending the freedom of the city, which was replied to by the President. Dr. Griffith was introduced and made a magnificent address, giving the Society the benefit of experience and advice which will be of inestimable value to the members in years to come. Dr. Aud was introduced and in a splendid talk made every heart glad that its owner was a member of the great Kentucky State Medical Association.

The regular work of the Society was then taken up and the time fully occupied until 5:30 P. M. with papers, discussions and clinics. At 5:30 the election of officers was entered upon for the ensuing twelve months, which resulted in the election of the following:

Dr. B. M. Sloan, of Grove Center, President; Dr. J. W. Conway, of Springfield, Vice-President; Dr. L. C. Adcock, of Morganfield, Secretary-Treasurer; Dr. S. L. Henry, of Seven Guns, Delegate, and Dr. W. A. Richards, of Morganfield, Alternate.

The Society adjourned at this point to meet at the Masonic Temple at 7 P. M., where a sumptuous banquet had been prepared for their entertainment, and as the Martini's and Mumm's Extra Dry went down, so in proportion the spirits of the members went up, until when final adjournment was had at 10 o'clock P. M., all went home, feeling that it was good to be a member of the Union County Medical Society at least once a year.

Dr. Aud and Dr. Griffith will always find our latch-string upon the outside, and we hope to have them with us again.

R. H. C. RHEA, Secretary.

* * *

At a meeting of the Campbell and Kenton County Medical Society, held at Speer's Hospital, October 26, 1905, it was brought to the notice of the Society that the professional confidences of physicians were not safe from legal violations, in Kentucky. A committee being appointed to investigate the matter, reported of the following resolutions, which were adopted:

Whereas the relation of patient and physician is the most intimate and confidential of all professional relations and the preservation of the sanctity of the relationship is of the highest importance to the public and any vio-

lation of this obligation of secrecy must work manifold evils to the public.

And whereas, though the Code of Ethics of the American Medical Association puts the seal of secrecy upon the lips of physicians, nevertheless a physician may, under the laws of Kentucky be compelled to disclose these secrets in open court. Now therefore be it,

RESOLVED, That it is the duty of every physician in Kentucky, to his patients and to himself, to do his utmost toward the passage of an act by the coming Legislature which shall protect the secrets of the physician, as those of the lawyer and priest are now protected and, be it further

RESOLVED, That our Secretary be directed to send a copy of these resolutions to each medical society in Kentucky, with the request that each society shall secure the support of the local members of the coming Legislature for such a measure.

F. A. STEIN, Sec'y.,

* * *

The Ohio Valley Medical Association held its seventh annual meeting at Henderson, Ky., on Nov. 8, 9th, Dr. J. W. Stone, of Henderson, occupying the chair. The following officers were elected:

President, D. M. Coffith, Owensboro; Secretary, Thomas J. Floyd, Evansville.

The next meeting will be held at Louisville.

ITINERANT DRUG VENDOR FINED. OF INTEREST TO COUNTY BOARDS.

Campbellsville, Ky., Dec. 23, 1905.

Dr. J. N. McCormack, Bowling Green, Ky.

My Dear Doctor:

A man named Bachner, claiming to hail from Vincennes, Ind., and accompanied by a negro singer, has been operating in Campbellsville for a few days, giving street entertainments and selling his nostrums. He made his headquarters at a drug store, making the druggist his agent for selling his mixtures. I secured his arrest yesterday, and had him tried before the county judge, and he was convicted, being fined \$50. I think he leaves town today, and he promises to be "good" so far as Campbellsville is concerned, but suppose he will move on to some other town to play on the gullible public. He came to this town from Lebanon, where it seems he made a pleasant and profitable stay of two weeks, and says he has been operating in Kentucky for three years. I had him tried under Section 6 of the new law as an itinerant tramp or company vending nostrums. Yours very truly,

J. L. ATKINSON.

N. B.—I want to commend our county attorney, Mr. J. T. Moss, for his good work and energy in the case against the bitter attacks of the two attorneys for the defendant.

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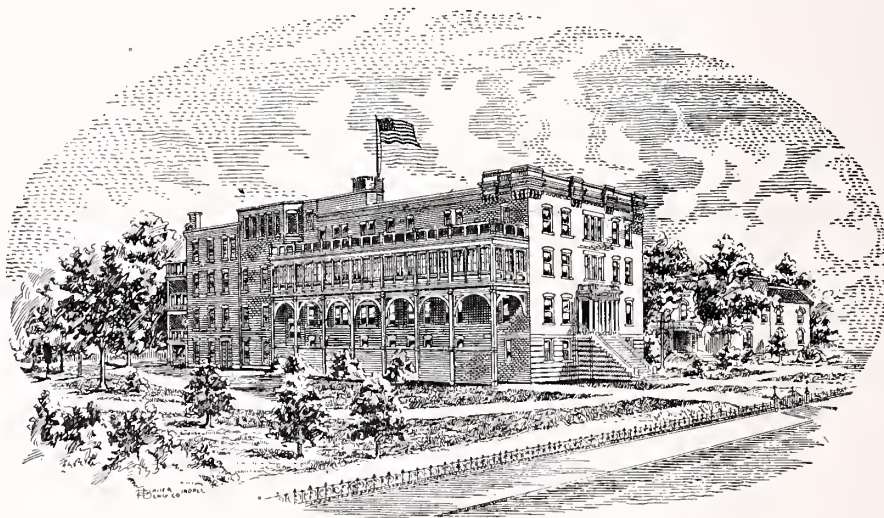
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NO. 9.

PUERPERAL INFECTION.*

By EDWARD SPEIDEL, M. D., Professor of Obstetrics and Diseases of Women, Hospital College of Medicine, Louisville, Ky.

As a result of scientific investigations, notably by Dr. James Ewing, of Cornell University, it has been established that the pregnant woman suffers from a toxæmia that is peculiar to that condition. This is the so-called hepato-toxæmia, a condition due to hepatic insufficiency, a failure on the part of the liver to perform its function properly. This condition is of interest to the obstetrician in so far that it predisposes the patient to septic infection, and practically solves the puzzle that has worried the practitioner in many a labor case. No doubt every one who practices obstetrics can remember cases in which, in spite of every precaution, septic infection followed in the puerperium, whilst in other cases, in which force of circumstances and surroundings resulted in neglect of all semblance of asepsis, still the patient had no puerperal infection. In the former instances the patients undoubtedly suffered from hepato-toxæmia, and consequently had lost the power to resist the invasion of the virulent micro-organisms that are now admitted to be present in the majority of puerperal uteri.

The text books of the present day recognize two forms of puerperal infection: sapraemia, in which portions of placenta and membranes are retained in the uterus; the products of their decomposition being absorbed into the system a toxic infection results. The other form, septicaemia, in which virulent micro-organisms, especially the streptococcus, staphylococcus, gonococcus and colon bacillus, enter the genital tract and produce an infection which permeates the system through the blood current. It is now established that a true sapraemia is rare, more or less septic infection being generally associated with it, or the conditions in the uterus are so favorable for septic infection that with the slightest disturbance of the existing condition a septicaemia becomes engrafted upon a sapraemia. It is taught in most text-books that a septicaemia is due to the entrance or introduction of virulent micro-organisms into the female generative tract. Recent investigations demonstrate that the ostium

vaginae swarms with all kinds of bacteria, which can readily ascend the vaginal canal. Contrary to former statements, it is now admitted that the vaginal secretion of a healthy woman is not sterile, and that it does not have the power to destroy pathogenic organisms. It is further proven that the pathogenic organisms can be found in the uterus of the majority of women in the puerperium.

It may then be stated that a patient will have a sapraemia if portions of placenta or membranes are left in the uterus. If the placental mass is disturbed in such a way as to produce an abrasion of the mucous membrane of the uterus, then the septic organisms that apparently are present in the uterus, or have entered or been introduced during labor, can then penetrate the uterine structures, and we have a septic infection in connection with a sapraemic. Furthermore, if the patient is suffering from hepato-toxæmia then she has not the ordinary power of resistance against microbic invasion, and the pathogenic organisms that are in the uterus, that migrate from the vaginal canal or are introduced upon the hands or instruments, can then penetrate the uterine structures and a septic infection results.

Accordingly the prevention of puerperal infection is dependent upon the resisting power of the tissues, and if this vital resistance is reduced by any agency, then a predisposition to infection exists. It is found that after prolonged labor and post partem hemorrhage, infection is liable to follow and it will be found that hepato-toxæmia will also predispose to that condition.

It would be beyond the scope of this paper to go deeply into the pathology of puerperal infection. It should be remembered, however, that in both sapraemia and septicaemia a protecting layer is formed by cell infiltration in the endometrium which is effective in cases of sapraemia in confining the process to the affected area; whilst in septic infection it is not so well developed and generally does not prevent a spread of the condition to neighboring structures. In the severe forms of septic infection no such cell infiltration can take place, as the infection becomes general at once. These points in pathology should be remembered, as they determine a rational treatment of such conditions. If further investigations prove the truth of the assertion that virulent organisms are present in the uterus of most puerperal women, then the value of such scientific

* Read before Kentucky State Medical Association, October 18, 1905.

aids to diagnosis as the recognition of such organisms in the cultures made from the lochial discharge obtained from the uterus with a Doederlein tube, will be nullified and the physician will be compelled to depend largely upon the symptoms, the character of the lochial discharge and the conditions of the genital tract, for making his diagnosis. In all instances it is safe to consider an elevation of temperature in the puerperium, unless distinctly traceable to some accompanying disease, as an evidence of infection. Even then we must remember that we may have puerperal infection as a complication of other diseases. As a pure sapraemia is rare, it is best to assume that more or less septic infection is present in all cases, and to act accordingly.

The treatment is of course prophylactic and curative; and with the knowledge that the toxæmia of pregnancy plays such an important role in its production, it is evident that the pregnant woman should be under constant supervision from the very beginning of the condition. It is unfortunate, therefore, that the ridiculously low fees of obstetrical work almost make this impossible, and it should be the duty of physicians to gradually educate the laity to a more proper understanding of the importance of obstetrical work.

It is admitted by all that proper cleanliness on the part of the patient, the nurse and the physician is of prime importance at the time of labor, and so the patient should receive a full bath if a primipara, a shower or sponge bath if a multipara, because in the latter case a relaxed perineum will allow infected bath water to enter the vagina. It should also be remembered that in a protracted labor the natural sweating of the parts, the soiling by incidental micturition and defecation, or repeated vaginal examinations, make a recleansing of the vulvar and anal region necessary at proper intervals, and not with the same wash-rag, but with absorbent cotton or clean towels. In many cases the physician will resort to frequent and painstaking cleansing of his hands, only to nullify his efforts by passing his examining finger over an unclean perineum.

The patient should be educated to the necessity of making vaginal examinations and of conducting the delivery by actual exposure of the genitals, and with the method of draping the legs and abdomen practiced in gynecological operations this is not impractical.

The multiplicity of antiseptic solutions, and the elaborate technique formerly used by surgeons for cleansing the hands, has now been relegated to the past, even the hand brush has been discarded, and the up-to-date surgeon now performs the most important part of

such cleansing with soap and water and a piece of gauze. The surgeon, however, is extremely careful of his hands at all times and in consequence the smooth surfaces which they present are readily cleansed by such treatment. Unfortunately this does not apply to the general practitioner, who is compelled to attend obstetrical cases after having dealt with all kinds of contaminating conditions in the course of his day's work, and whose hands are rough and callous from exposure. It is questionable whether the resort to an elaborate antiseptic technique can render such hands sterile, and consequently it is the writer's idea that it would be best for all concerned if, after careful preliminary cleansing with soap and water, sterilized rubber gloves be used for the vaginal examinations and the delivery.

In the treatment of the condition itself, the importance of this hepato-toxæmia again asserts itself, and a brisk stimulation of the hepatic function with intestinal flushing should be instituted. Consequently a large dose of calomel followed by 2 oz. of castor oil should begin the treatment. It is customary in this locality to follow this with the administration of sufficient quinine for several days to eliminate malarial infection to which the puerperal woman is peculiarly susceptible. The application of pure carbolic acid or tr. iodine to any necrosed areas in the vaginal tract, and the administration of hot vaginal douches, will often be sufficient in mild cases.

If the condition does not readily yield to such treatment, then the patient should be anesthetized and with the same precautions that are used in major operations the finger should be introduced into the uterine cavity and any blood clots, retained portions of placenta, or membranes, removed with as little disturbance of the uterine mucosa as possible. Under no circumstances should either a sharp or dull curette be used in the puerperal uterus. In septicaemia there is nothing to remove, the condition has already extended beyond the uterine mucosa. In sapraemia the protecting zone which has walled off the virulent organisms that accompany this condition, will be destroyed and a dangerous septic infection will complicate the comparatively harmless sapraemia. It is an established fact that death from an undisturbed sapraemia is rare. The entire placenta has been left in the uterus and patient has recovered, whilst the general septic infection that generally follows curetting results either in life-long invalidism, or death. With non-interference, 80 per cent. of septic infections recover. The evacuation of the uterus should be followed by a copious hot intra-uterine douche or normal saline solution. The stronger antiseptic solutions are contra-

indicated because systemic absorption may follow, with serious results.

If the infection has extended beyond the uterus, attempts should be made at once to limit its spread as, when the infection becomes circumscribed, the virulence of the micro-organisms becomes very much reduced, and, in fact, if continued long enough, they are destroyed and the pus becomes sterile. Accordingly in such cases the treatment advocated by Ochsner for appendicitis and acute salpingitis should be used.

Gastric lavage is used first of all, thereafter neither food, medicine nor water is administered by the mouth; rectal feeding and medication per rectum are resorted to. In those cases in which we have extensive peritonitis with tympanitic distention of the abdomen, if nothing whatever is administered by the mouth the tympanitic distension will subside, intestinal peristalsis will be arrested, the infection will gradually become circumscribed, and there will be a chance at least for these otherwise hopeless cases.

For a number of years, nuclein solution and collargol have been the remedies that have given me results in cases that resisted ordinary treatment. The nuclein solution is administered hypodermically in daily doses of one ounce by preference in the right or left hypochondriac region. The collargol, 7 1-2 grains dissolved in 2 oz. of water, is introduced into the rectum twice daily one hour after the administration of a small enema of pure sterile water.

Even if rectal feeding is not resorted to, the patient should only receive the blandest of foods during the febrile period; in fact the dietary should be conducted much as it is in the first two weeks of typhoid, buttermilk being the mainstay.

As to hysterectomy, the operation is only indicated when the infection is distinctly confined to the uterus. If it has extended to neighboring structures, then the operation will be followed by infection of the stump and general peritonitis. Infections that are distinctly confined to the uterus will often yield to ordinary treatment, and on the other hand it is almost impossible to diagnose positively whether the infection has involved the surrounding structures or not.

If the operation is resorted to as a last resort a moribund woman is subjected to an operation that is practically hopeless, whilst in mild cases the uterus would often be sacrificed when ordinary methods would have effected a cure of the condition.

PREVENTION AND TREATMENT OF POST PARTEM INFECTIONS.*

By BASIL M. TAYLOR, M. D., Greensburg, Ky.

"An ounce of prevention is worth a pound of cure," and "In time of peace prepare for war," are two fingers that point the obstetrician to success. No greater responsibility than this sacred trust implies can be placed upon the obstetrician. He who can successfully and scientifically meet the indications in the parturient woman from the date of her pregnancy to the end of her puerperium is competent to do abdominal surgery. I will say with emphasis that he who does not feel competent to do a hysterectomy should never sit at the bedside of a woman in labor. If all physicians were competent obstetricians, and and women treated as they should be during pregnancy, in the course of a few generations, pelvic surgery would be a lost art.

Ask any gynecologist to-day who sends him the most cases, and he will tell you men who fail to do their duty as the physician guardian of the pregnant woman.

The estimate may be rather large, but if the "Waters could speak as they flow," they would tell us from experience that 90 per cent. of the physicians consider that all the responsibility resting upon them in such cases consists in getting there in time, delivering the woman, tying the cord, taking the afterbirth, staying all night, eating breakfast and going home. If all these are done they succeed in making a fine impression on the cervix, perineum and neighboring women. These poor, unfortunate women enter their labors without preparation or a single word of instruction from their physician. They know from intuition they have in utero a baby, a bag of waters and an afterbirth. The words foetus, liquor amni and placenta are all Greek. They regard their rectum and bladder as convenient receptacles, and are totally ignorant of the many possible dangers ahead of them. Labor is as pure a case of emergency as a fractured limb or a severed artery. No physician would go to these without due preparation; yet how many of us insult the solemnity of the parturient chamber by entering it with nothing except our hats and gloves? It is as unjust to enter heaven without religion, or hell without sin, as it is to enter a parturient chamber without preparation. A spool of thread from the work basket, a saucer of lard from the kitchen, and a few old quilts from the garret make up the outlay with which to cope with this case of emergency and the possible complications. No wonder the gynecological tables are laden with ripe fruit; no

* Read before Kentucky State Medical Association, October 18, 1905.

gauze, no cotton, no pad, no chloroform, no ether, no instruments, no nothing with which you can take that mother by the hand and pilot her safely through the valley and shadow of death. No wonder the name of mother is sacred to every human heart; were it not for the kind hand of providence the mortality would equal the number of pregnancies.

To prevent post partem infections we must begin preparations several years before the woman becomes pregnant. The popular idea of preventing post partem infections consists in having everything about the patient aseptic. There never were, there are not now, and there never will be but two sources of post partem infections, and they are from without and within. If we analyze this topic thoroughly, we must divide it into four principal stages of preparation, and the first stage must receive the most careful consideration. The first stage in the prevention of post partem infections consists of the thorough preparation of the medical student, and this embraces the time between matriculation and graduation. The second, the physical preparation of the pregnant woman. Third, the preparation of the doctor. Fourth, the nurse.

Solomon said, "Train up a child in the way he should go and when he is old he will not depart therefrom." Training up the sons of medical Colleges in the ways they should go and keeping them there until they are familiar with these ways, is the first step in the prevention of post partem infections. No student should be allowed to graduate until he owns and exhibits to his teacher an up-to-date obstetrical equipment and expains the duties devolving upon him in the care of pregnant women. He should know more of the evil results of neglected hygiene and the little accidents that attend labor than he does of the different presentations. He should know that a subinvolution will favor post partum infections as often as the woman becomes pregnant. He should go on the bond of every infection germ hiding in a lacerated cervix. He should be told in every lecture that the coat of arms of Kentucky was suggested by a prolapsed uterus, the result of a lacerated perineum. When asked by a more fortunate uterus why she was thus fallen she replied that "United we stand, divided we fall." The uterus, like the human race, when once fallen is open to every vice. He should go forth fully impressed that his first duty is to teach the people how to remain sound and then administer in case of illness. As the woman furnishes the most dangerous source of infection — that from within—she should be thoroughly prepared for the trying ordeal through which she is to pass. As often as opportunities present phy-

sicians should impress upon women the importance of placing themselves under the care of a competent physician as soon as pregnancy is ascertained. Her health should be kept as near at par as possible. Any woman of average intelligence can soon be taught to report any deviation from normal.

Supperation in the ear, nasal cavities or accessory sinuses, chronic tonsilitis, any catarrhal trouble about the kidney, colon or sexual organs may furnish through the circulation the infecting material. It matters not how perfect the lying-in-chamber, and how thorough our technique, the streptococci imported from some infected organ and lodged in the blood clots may slay our patient before our eyes and leave us to wonder how it happened. I maintain that at least ninety per cent. of all cases of infection could be traced to a condition existing in the woman prior to labor, two per cent. to external causes during, and eight per cent. after labor. Were this not true the lying-in-chamber would be a wholesale slaughter pen. If the woman has been relieved of all sources of ante partum infection, the prevention of post partum infection is easy.

She should be charged on the first symptom of labor to thoroughly cleanse the rectum and colon with a high enema. This will prevent defecation during labor which is dangerous and annoying; besides, infection is sometimes caused from injury to the rectum and vagina by pressure on a loaded rectum.

The attending physician must be sole master of the situation, quick to foresee danger and avoid it, and equipped for any emergency. He should be aseptic. He should terminate labor with as little shock, suffering, hemorrhage and traumatism as possible. Any expense to vitality favors infection. He should turn every pocket inside out as soon as he enters the room so that after his hands are washed he will not put them in his pockets before making an examination. Results are not always governed by our good intentions. The power of mind over matter has no place in bacteriology. The vulva should be washed with 1-1,000 bichloride solution. The hands and arms should again be cleansed before making an examination. When the finger is once introduced into the vagina it becomes its guest and no matter how often withdrawn, it should be dipped into an antiseptic solution before it is again introduced. The patient had just as well be infected at the first as at the last examination. Eternal vigilance, then, is the price of prevention.

The preparation of the bed is a matter of importance. The mattress should be protected with a thick layer of clean material or rubber sheeting, and this covered with a clean

sheet and then a Kelly pad placed under the patient's hips. This will drain away the discharge as it flows. A clean towel or rubber sheeting can be pinned to the top sheet and turned up over the edge of the bed clothing for protection. I have frequently attended women in confinement and not had a single article of clothing soiled. This is quite a saving of time, labor and money, especially, if the patient is poor. I have frequently had physicians to tell me that they had seen the discharge soak through the mattress and stand in a pool on the floor. There is no excuse for this. The physician who permits this through lack of proper equipment is not entitled to collect the fee. All women are not confined in well appointed apartments with extra beds and a closet full of clean linen. I have often seen the kitchen, dining-room and lying-in-chamber all in one room, and this furnished with one bed, only one towel in the house, and the woman's gown consisted of a worn calico dress. It would be an unpardonable sin to allow the discharge to soak through and render unfit for use the only bed she possessed. Her life will be placed in jeopardy by carelessness and incompetency. Poverty is not a disgrace, but a misfortune, and this woman's life is as sweet to her and she deserves the same protection at our hands as the wealthy. It is criminal negligence to leave one avoidable chance for infection when a few dollars invested in supplies would allow the woman to be confined in safety. We trust too much to luck. Germs are no respecter of persons, poverty, wealth or social prestige tend to produce no immunity. If we accept the responsibility of a case, we must do all or nothing. We may shirk our duty in splitting wood or shoveling coal, but human life is too sweet, too dear, to trust to luck. The Golden Rule was doubtless made to hang at the head of the bed in full view of the physician. I never enter a lying-in-chamber without feeling the responsibility of my position, and after I have done my duty and emerge from a successful case, I rejoice that mine is the profession of medicine.

The uterus should be thoroughly emptied of all blood clots and a good contraction secured and maintained. All injuries should be repaired carefully and the parts cleansed with 1-1,000 solution of bichloride of mercury, and a pad of absorbent cotton placed over the vulva and held by a simple napkin. The parts are bathed three times daily with 1-1,000 solution of bichloride and fresh cotton applied until the lochia cease. The anus, after defecation, must be cleansed with a backward motion. In bathing the parts the nurse must not allow flies to alight, for upon their legs and bills they carry the most infectious matter they can find. The family dog, whose mouth is

reeking with putrefaction from the carcass of a cholera hog, must be kept at a distance. The bed must not be touched by anyone who goes about in the barnyard. The enthusiastic father may leave off doctoring his sore-legged, dis-tempered, or glandered horse long enough to come to the bedside to see how "woman and kid" are getting along. Rough-on-rats must not be put out until the babe is at least a month old, so that the rat that dies in the wall at the head of her bed won't show his "mortification" in time to do any damage.

The sum total, then, is to remove all possibilities of ante partum infection, and at labor do your duty as an obstetrician and leave your patient in such a condition that infection will not be invited in this or subsequent labors.

The fundamental principles in the treatment of infection are the same, no matter what tissues are involved. First, to remove the cause; second, to assist in removing effects; this is often difficult or impossible. If the patient is infected, ascertain at once the true character of the infection, for success depends upon specific means directed as specific demands. If we know the character of infection, we will work with confidence even tho' we fail in results. A good carpenter knows that a 40-penny nail will not answer the purpose of a 4-penny, and vice versa. A microscopical examination of the lochia will reveal the presence or absence of pathogenic bacteria and the true character of the infection.

If infection is due to the pressure of decomposed shreds and blood clots in the uterus, the treatment of course consists in thoroughly removing all offending material with swab and curette, followed by thorough irrigation and drainage under rigid aseptic and antiseptic precautions. The uterus may be packed with sterile gauze saturated with glycerine 7 parts, boroglyceride 2 parts, ichthyol 1 part. This reduces congestion, and prevents further putrefaction.

Staphylo-strapto and gonocci when entrenched in the uterus are the most formidable enemies with which the physician has to deal. The strepto and staphylococci not only burrow with lightning rapidity through the pelvic tissues, but enter the circulation and infect wherever they lodge. If the woman has a streptococcus infection, her minister and a surgeon should at once be called. The vulva should be cleanly shaved and the vagina scrubbed with a soft brush and green soap and then irrigated with a solution of bichloride 1-3,000. If there are any abrasions, cauterize with silver for protection. Curette the uterus with a sharp curette and cleanse thoroughly with a solution of permanganate of potassium of bichloride.

Great care should be exercised in the curettage to prevent rupture should a pus tube exist. Antistreptococcic serum should be given and repeated often enough to secure results. The uterus should be irrigated often enough to prevent retention and absorption of the discharge. Watch the pelvis carefully for local cellulitis or peritonitis. Maintain elimination through the bowels, skin and kidneys. If the focus of infection was not removed by the curettage and there is no improvement, the case is purely surgical.

The vagina should again be thoroughly cleansed and the uterus packed with gauze and the cul-de-sac opened through the vagina. The uterus and adnexa can then be examined. A search should be made for pus tubes or pockets of pus. If a pus tube exists, or the uterus indicates deep seated infection, a complete hysterectomy is the only course to pursue.

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DISCUSSION ON PAPERS OF DRs. SPIED- EL AND TAYLOR.

Dr. R. C. McChord, Lebanon: This is a subject we cannot well be too dogmatic about, as to whether or not to use the curette. In some hands the curette is a very dangerous instrument, while in others it is a most serviceable one. To say flatly that we will not use the curette under any circumstances is wrong, because there are occasions when its use is indicated, and in the hands of the proper man it is of inestimable value. Of course, the curette is a dangerous instrument, and especially is this true when it is used in the **puerperal uterus**, yet there are occasions when I would not hesitate to use even a sharp curette, but it must be used with a great deal of caution or much harm will result.

We should not be too dogmatic in our expressions on a subject of this kind, because most of us use the curette more or less, and I believe that no man should be condemned because he favors the use of the curette under certain circumstances. Personally I believe that there are very few instances in puerperal cases in which the use of the curette is justifiable, but when its use is indicated, I for one, do not hesitate to use either the dull or the sharp curette. Individual knowledge and judgment should obtain in these cases, and not an absolute negative rule.

Dr. Archibald Dixon, Henderson: A very sharp distinction should be drawn between the use of the curette in abortive cases and cases that have gone on to full term. In the abortive case one can often use the curette, either the sharp or the dull curette, but you cannot use either in a case that has gone on to full term and in which you are dealing with an infected and boggy uterus. These cases are entirely apart and distinct. In the cases mentioned by Dr. Speidel, I do not think that it would have been well to use either the sharp or the dull curette.

First of all, one's finger is the best curette in the world. There is no instrument equal to it, especially when the finger is wrapped carefully in a piece of gauze. You can introduce the finger into the uterus without any trouble. You can then scrape out the cavity of the uterus and do it in a way that is infinitely safer and superior to the curette. There is nothing comparable to the use of gauze in cleaning out the uterus in such cases as Dr. Speidel mentioned, from the standpoint of safety and effectiveness.

Dr. Wm. H. Wathen, Louisville: I did not have the pleasure of hearing the paper read by Dr. Speidel, and, therefore, cannot discuss any feature of it, except the statement he made in explanation of the difference between his views as to curettage for puerperal infection and the views held by Dr. Taylor. There are so many points involved in these two papers that the limited time will not permit of any thorough discussion, so I will first refer to the question of curettage.

It is now an accepted principle by the most scientific authorities in the world in obstetrics that curettage in acute puerperal sepsis is always contraindicated, but where there is a putrefactive infection, where there is organic matter being acted on by the germs of putrefaction, and the poison generated in this matter is being absorbed into the system, then curettage is the correct treatment, removing from the uterine cavity any decomposing organic matter. That can nearly always be done better with the finger or the finger wrapped in gauze, than any other means, and these cases yield promptly to this treatment.

Where there is a mixed infection, both septicemic and putrefactive, you may even then remove the organic decomposed matter from the uterus with benefit; not with benefit to the septicemic process, but only to the putrefactive process. Therefore there is nothing to be gained by curettage in puerperal septic infection, and every injury is to be expected. You cannot curette away the infected tissue, and you will probably, in many instances, break through the protecting wall that nature has thrown around the infected tissue in the uterus and thus convert a purely local process into a general infection that will endanger the life of your patient.

When it comes to the question of the recommendations for the accoucheur in the cases under consideration, I must take issue with the following statement made by Dr. Taylor, namely: "Ninety per cent. of these cases are infected from the woman herself; the remaining ten per cent. are infected from other sources." I say that in nearly 100 per cent. of the cases the infection is carried to the woman from external causes; she is not infected from internal causes, **unless it be from a rupture of a pre-existing infected area in the pelvis.**

We note the fact that in the best maternity hospitals in the world, to which are brought

women in labor picked up in the alleys, lying in filth, and are delivered in the hospital, that such a thing as puerperal infection is nearly unknown. Therefore, these precautions that have been mentioned in Dr. Taylor's paper are entirely unnecessary. Make your patient clean; make yourself clean; make everything clean that comes in contact with the parturient tract, and you will not have any puerperal infection. The odor spoken of, caused by dead rats and dead mice, is as powerless to produce puerperal infection as it is to produce cholera. Odors do not produce infection; in fact some of the worst odors do not have any septic germs at all in the material from which they emanate, and some of the most virulent septic matter is odorless.

Under no circumstances, unless there is pre-existing disease of the vagina, should we use a vaginal douche either before or after the delivery. If the douche is used at all, in infected cases, it should be used in the uterus; and then it is useless to use carbolic acid or bichloride of mercury, because these substances will not kill germs in the strength in which they can be used. Plain water will wash away everything just as well and there is no danger that it will poison the patient.

Dr. I. A. Shirley, Winchester: The man who advocates the use of the curette in every case of puerperal infection, and the man who never uses it, are both wrong; they are extremists. In cases where unquestionably something is left in the uterus, use the dull curette to remove the offending material. But unless you are reasonably certain that such substance exists, keep outside. The sharp curette has no place in the treatment of puerperal infection. In these cases where it is not thought curettage is indicated, use bichloride one to five or even three thousand of normal salt solution, after making sure that you have sufficient dilatation to permit the injection to escape, and give freely of protinuclein and quinine. An occasional introduction into the uterus of an iodoform pencil and allowing it to remain until dissolved I often think is of much benefit. On account of the impossibility of always getting pure water in the country we rural roosters are often up against the difficult proposition of asepsis; but doing the best we can under the circumstances and keeping our weather eye towards the importance of cleanliness so far as in our power lies, our results compare favorably with our more fortunate city brethren. I want to say, Mr. President, that if a man cannot conduct a normal labor to a successful termination without exposing any part of the anatomy of the female, such an individual should be prohibited by statute from the lying-in chamber. Of course if forceps are to be used, or the perineum to be stitched, expose the parts to see what you are doing. Otherwise keep inviolate the God-given modesty of the gentler sex, and don't out-

rage it for the benefit of the physician who **should** but cannot educate his good index finger.

Dr. H. D. Rodman, Bardstown: I wish to take issue with the author of one of the papers. I wish to defend woman's modesty. When I attended lectures we were taught not to expose a woman in labor. She should be covered up with a clean sheet, and the genitals should not be exposed. I find after thirty years of practice that my sense of touch is more acute in detecting the condition of things than in my sense of vision. I can tell more by touch than by looking.

We should not expose a woman. Her modesty should be protected, and I see no reason why physicians of to-day bare a woman from her waist down to her feet during labor. That is the rule with the young men, and I, for one, condemn the practice. There is no reason why that should be done. The physician should educate his fingers so that he can tell by touch the exact condition of the genitals during labor better than he can with his eyes by looking.

The patient should never be exposed unless it is an instrumental delivery, and even then I keep the woman covered with a sheet while I introduce the forceps. I cannot tell where the forceps blade is going by looking, because I cannot see it, but by the sense of touch you can place the forceps just where you want them without injuring the woman.

Dr. W. W. Anderson, Newport: I want to ask why we should not be careful about making these "never" rules; never using the curette and never exposing the woman. There is but one safe "never" rule and that is, "never make a never rule."

Dr. Rodman tells us that he can tell more with his fingers than he can with his eyes. He has been using his fingers longer than his eyes; but there are times when we must use our eyes more than our fingers.

Dr. Taylor mentioned the use of the antistreptococcic serum, used often enough to give results. I wish he would tell us how often that is, and what his experience has been as to the value of this serum. The whole sum and substance of preventing infection is along the line of what General von Moltke said about preparing for war: "What the nation needs is money, more money, and still more money." What we need is cleanliness, more cleanliness, and still more cleanliness.

Dr. Arthur T. McCormack, Bowling Green, said: In the present state of the art of obstetrics in Kentucky, I am satisfied that we are doing small harm in exposing the patient either at the time of labor or afterward. This modesty business, as offered by doctors as an excuse for not knowing what they are doing, is pure sham. It is true that most cases can be delivered without being uncovered, but we can neither prevent nor detect a laceration of the perineum by touch. The

men who say that they never saw a lacerated perineum in their practice tell the truth only because they never look at their patients after they are delivered.

The time has come for us to be honest with ourselves and each other. No doctor can tell as much about the result of a labor with his finger as he can with his eye and finger. It was permissible to make such a statement ten years ago, but it is disgraceful to-day. We ought not to permit such things to be said without entering vigorous protest.

In obstetrics it is essential that we adopt the simple and effective means the surgeons have already devised to prevent infection. We ought not to have infection in labor. I heard Dr. McLane say in New York in 1896, that he hoped to see the time come when a woman, who had not pus tubes before labor, became infected, that the responsible doctor or nurse should be hung. This was probably a little extreme, but that time is coming and we had best prepare for it.

Ninety per cent. of the women are infected by the doctor or the nurse, and I feel sure that very few of these are done by the competent nurse. The large majority of infected cases come directly from the doctor, and we can trace them to other cases that he is treating. When we all realize this, and appreciate the value of keeping ourselves, especially our hands and clothes, clean, there will no longer be need for discussion of puerperal infection: there will be no such cases.

Dr. Louis Frank, Louisville: I want to say a word about the preparation of the patient. I have, in times past, delivered a great many women, and I know that others present here to-day have been doing obstetric work ever since they graduated in medicine. I believe that much of this preparation of the patient advocated is dangerous and absolute poppy-cock. I do not wish to be understood as saying that we should avoid cleanliness, but I do wish to protest against putting into the hands of every man who goes out to practice medicine a satchel containing forceps, craniotomy instruments and decapitation hooks that we find mentioned so often in text books on obstetrics.

The one thing that has done more harm than anything else is the indiscriminate use of forceps. The man who has not time to stay with a patient until she is delivered without the unnecessary use of the forceps, to save time, ought not to deliver a woman at all.

I agree heartily with and endorse what Dr. Wathen said. This matter lies entirely with the accoucheur. This thing of scrubbing patients up with bichlorid of mercury is folly. I believe that using the ante-partum douche, the introduction of sterile gauze, washing and scrubbing the vagina, etc., before labor are dangerous procedures. The introduction of douche points after labor is

another source of a great deal of trouble. Here, in Louisville, puerperal sepsis is on the decrease. I do not see one case to-day where I saw ten or a dozen a few years ago, and, I believe, that is true with all gentlemen who are doing a consultation practice. The cases we see are cases that have been cleansed and douched, and nozzled and scrubbed, and all that sort of business. If you will spend more time on your own hands and keep out of dirty cases before delivering a woman, keep away from pus cases and cases of erysipelas, you will not see so much infection.

I do not believe that we can draw any hard and fast lines. Dr. Dixon touched the keynote of the use of the curette. In certain cases of abortion, the sharp curette is absolutely necessary. These are the cases mentioned by Dr. Wathen. In cases of toxemia due to the absorption of poisons generated in placental remains, whether at full term or preceding full term, we do have occasion to use the curette, or better still, the finger clothed in gauze. But there is a place in these cases for cleansing the uterus and outside of the cases mentioned above, I agree with Dr. Speidel that in these other cases the curette is absolutely dangerous. It is an instrument that should have no place in the bag of the obstetrician. It does more harm than good.

We ought to make a better classification of cases of puerperal infections. We talk about puerperal septicemia, puerperal sepsis and puerperal infection. We have a number of propositions to consider in each class. The trouble is that all these cases are treated in a routine manner. There are cases of peritonitis without infection of the cavity of the uterus; infected tears of the vagina without infection of the uterus or lymphatics, and infection of the broad ligament. There may be a septic endometritis that remains localized. Do not classify these cases all in one group. Study the case carefully. Let each case stand alone in a class by itself and treat each case according to the nature and location of the infection. Do not look on all these cases as being toxemic. If you have a true septicemia, no plan of treatment that you may devise will do any good. Injections of antitoxin are of no value in these cases.

If you have a case of pyemia, you may succeed in saving it. In cases of septic puerperal endometritis, the uterus must come out. If it is a case of peritonitis, you must open the cul-de-sac and drain the peritoneum; but study the individual case and treat it according to your findings.

Dr. John E. Cannaday, Paint Creek, W. Va.: The days of carbolic acid and bichlorid of mercury are past. We know that the bichlorid combines with albuminous substances and forms an insoluble compound; hence it could not penetrate into the interior of the uterus and do any good in these cases of puerperal infection. Carbolic acid

acts very much in the same way. Even if these antiseptics did have any penetrating power they would poison the tissues quite as much as the bacteria do. The curette will do as much to disseminate poisons as it will do to remove them. If nature attempts to build a barrier against infection, by the use of the curette you will break down this barrier.

Some one suggested that the finger is a good instrument with which to remove putrefying matter. That is true. All decaying tissue should be removed as soon as possible. I saw a case quite recently where a portion of the placenta was left in the uterus. The patient had a temperature and a rapid pulse from the absorption of the poisons. Dilatation and curettage produced marvelous results. I have also seen cases of septic infection, with endometritis, that were curetted and rapidly went from bad to worse.

The time is coming when we will depend less on antiseptic solutions and more on physiologic therapeutics. As the years roll by, doctors will use fewer drugs and rely more on nature's methods of cure.

It has been said that the woman should be delivered under a sheet. I think that most of the gentlemen present will agree that there is more or less bosh in that. A doctor would not think of doing a laparotomy under cover. In the case of a patient, one part of the body is not much better than another. At a time like that, there is no place for false modesty. No one would think of repairing a fractured patella under cover, or of trying to repair a hernia that way, and the same principle holds good in a confinement.

There is one antiseptic solution that has recently attracted my attention. Dr. Kirraman, of Chicago, found that one half of one per cent. of a solution of iodine in alcohol is ten times as antagonistic to staphylococci and streptococci as a 1-1,000 bichlorid solution. If there is anything to use in or around an infected uterus it will be either iodine or some compound of iodine. We all remember the treatment instituted for puerperal infection by the late Dr. Pryor, of New York. In most of these cases of bad pelvic infections he was in the habit of opening the cul de sac of Douglas and packing iodoform gauze around the uterus and leaving it there for the iodine to be liberated in the hope that it would check the infection. That was good treatment and we should not forget it when treating these cases of puerperal infection.

Dr. Thomas J. Shoemaker, Morganfield: I am satisfied that obstetrics in the city is different from obstetrics in the country. Take the dirtiest cabin in the country, see all kinds of filth in beds and bed clothes, and you can go ahead and deliver the woman and inside of a week or two she is up and doing the washing. But here in the city where you make so many cultures of bacteria

of all kinds they seem to get away from you and you have trouble. I never saw a case of septicemia in the country unless the doctor was filthy in his habits.

There is one thing in the paper that I do not understand. Dr. Speidel said that he gives quinine before labor. We, in the country, give quinine when we do not have strong labor pains, and it does the work every time.

Dr. McCormack said that he did not know the shape of the vagina or the uterus, and that he could not tell whether these structures were intact or torn, without seeing them. My forefinger never forgets its cunning. It can detect the least tear in the perineum, and I want to say to you that in the case of a primipara there always is more or less rupture.

I believe that the doctor can disinfect his hands thoroughly with bichlorid, if he wants to, and he had better do that than to send his patients to a doctor who will not do it. I have treated cases of erysipelas and a confined woman on the same day without having any trouble; but I always disinfect my hands, and change my clothes. That is the way we avoid having trouble in these cases.

Dr. J. S. Lock, Barbourville: As Dr. Frank said, every case is a case by itself. In the country we must adapt ourselves. I have had labor cases where I could not get water enough to clean either myself or the woman. I have attended cases of labor where the only water I could get was in a frying pan or a crock. I would not give all the bichlorid in the world for a good coating of the hands with ten per cent. carbolated vaselin. I have never had a case of puerperal sepsis. I believe in being clean.

I saw a case where I did not think that there was any possible chance of saving the life of the patient, taking into consideration the surroundings and the difficulties under which the obstetrician was laboring. I could not tell what would be the outcome. Yet the patient lived. And I have seen cases where bichlorid was used and the result was much more serious than in the case where nothing was done.

These theories are all right. It is well enough to teach medical students what they should do. They should have the patient under their care as soon as possible after conception. They should see her once or twice a week or every day, if necessary; but you cannot do that in the country where you never see the patient until her husband comes in ten miles and calls you to see his wife. When you get there, the woman has been in labor for twenty-four or forty-eight hours, with half a dozen women there, and you do not know what they have been doing. Sometimes the patient is pulseless, but the thing for you to do is to deliver her as quickly as possible. You must adapt yourself to circumstances and do what you can. It is well enough to talk about antiseptics, but in a case

like that you cannot antiseptize; you must save the patient.

Some said, do not trust to luck. I have had cases where I have had to trust to luck. We who practice in the mountains where there are only a few doctors in the county, must do the best we can. We have some bad results and some good results where we least expect them.

As to exposing the patient: I do not believe in exposing the patient, and I never do, unless I believe there is a laceration of the perineum or the cervix. If I think there is a laceration, I never hesitate to expose the patient. I do it in a way that is not objectionable to her. I do it because I feel it my duty to do so.

Dr. L. B. Cook, Stanford: I believe that every man should keep his fingers out of the vagina. Then we will have few cases of sepsis. We must know what kind of an infection we have to treat; then we can treat it intelligently. I do not believe that the Kelly pad ought ever to be used in a case of obstetrics.

Dr. L. Sprule, Williamsburg: All these things that have been talked about have been impressed on me for many years, and I heartily endorse everything that has been said. I believe in cleanliness, but I do not believe in the use of bichlorid and all the other things. In my opinion there is more harm than good done with them. I have had a large experience in obstetrics in the country during more than forty-seven years of practice. I have delivered more than 4,800 women and some of them as many as ten times, and I have never had one die. The young man with his saddle-bags full of instruments whose use he does not understand, is a more dangerous man than the dirty man. Any gentleman of cleanly habits knows how to approach his patient, and he knows what to do if he has studied these things as he ought to. He certainly can clean his hands sufficiently.

There is no question about its being dangerous to practice obstetrics after you have been attending a case of erysipelas. As Dr. Shoemaker said, clean yourselves. If you practice common sense in these cases, you will have fewer fatalities than you have now. I have remained with a patient for forty-eight hours to deliver her rather than use the forceps. I have gone to see patients who were in convulsions for two days and nights, and yet these women have recovered. I have had 168 cases of puerperal convulsions in my practice, and so far as I know they are all alive and well to-day.

Dr. Speidel, closing the discussion on his part: I wish to correct a mistaken impression that seems to have been gained from the reading of my paper. I did not advocate exposing the patient whilst making a vaginal examination or during delivery. I advocated that the patient be dressed as in a gynecological operation, and I assure you that the patient is less exposed in that

way than in the ordinary way of delivery because she is covered absolutely from her toes to the umbilicus during the entire delivery, and when a vaginal examination is made, the sterile towel that covers the vulva can be lifted with one hand while the aseptic finger is introduced into the vagina. When the head is born, the towel is lifted and then the sheet is placed over the woman. There is less exposure than when you cover the woman with a sheet and at the birth of the child throw back the sheet and expose the legs and vulva. Consequently there is greater consideration for the modesty of the woman and greater safety in conducting the labor in this manner than in any other. I have demonstrated this method to my students and, I think, they will bear me out in what I say.

As to the use of the curette. The question arises, what do you call curetting? I apply the term to the scraping of the inside of the uterus with an instrument. I distinctly stated in my paper that any foreign matter in the uterus should be removed with the finger, which is more efficient in a full term uterus in recognizing foreign particles inside of the uterus than is the sharp or dull curette. There are instances on record in which the sharp curette had been used in the uterus two or three times, and then, on examination with the finger, portions of placenta were found that the curette had missed; consequently the dull curette cannot remove such tissues.

One of the first speakers said that the sharp curette in the hands of an experienced operator is a safe instrument. It is very strange then that expert obstetricians have all discarded the sharp curette. Only a few of them still use the dull curette under exceptional circumstances. The point is an important one, because men who have had experience find, when they are called in to a case where the sharp curette was used, that the result is that the infection has extended beyond the uterus. There is a general infection.

As regards the use of protonuclein: if Dr. Shirley, who has been using it by the mouth, will use nuclein solution hyperdermically, he will find that his results will be very much better, more rapid and more effective.

Dr. Taylor, closing the discussion: To read a paper that takes issue with no one is wasting the time of the Society. The object of my paper was to elicit discussion, and I have succeeded. And as part of my paper touched on the preparation of the medical student as a prophylactic measure against puerperal infection, and the preparation of the woman prior to labor, I can very well see why gynecologists differ with me. It is taking business out of their hands.

THE CARE OF BREAST AND NIPPLE DURING PREGNANCY AND THE PUERPERIUM.*

By R. M. COLEMAN, M. D., Lexington, Ky.

Hardly less than the pain of labor is the suffering that attends a badly caked or infected breast, so the importance of proper care during the puerperium can not be overestimated. There is little, however, to be said concerning this care during pregnancy. If the nipples are small and undeveloped much can be accomplished by teaching the patient to draw them out with perfectly clean fingers for a period of ten minutes each day during the last two months of pregnancy. For this purpose some bland ointment, as cocoa-butter, should be used. This not only develops the nipple, but prepares it better to withstand the violence of beginning nursing. Some authors recommend the use of 50 per cent. alcohol and other agents, during the last two months, which tend to harden the nipple, claiming that the skin is made more resistant. In my opinion this renders the skin more liable to crack and it would seem more rational to keep it soft by the application of some emollient. Cleanliness is of course a most important factor. Both breasts and nipples should be treated daily with warm water and a bland soap.

So much for the care of breast and nipple during pregnancy. I will now pass to their care and treatment during the puerperium. It now seems to be the most generally accepted view that breast infection is caused by septic contact with an abraded or cracked nipple. Hence, it will be our aim to prevent this as far as possible. The nipples should be bathed before and after each nursing with a saturated solution of boric acid. The child's mouth should receive a similar cleansing before nursing. The fingers of either nurse or mother coming in contact with the nipple should be as nearly sterile as practicable. If the nipple seems hard and there is a tendency to crack, much good may be accomplished by the application of lanolin or cocoa-butter, previously sterilized, on small pieces of sterile gauze between nursings. Should the nipple crack in spite of the above precautions, it should be touched with a 10 per cent. solution of nitrate of silver after nursing. This application should be made daily for three or four days. Healing usually takes place at the end of this time. The length of time the child is at the breast is also important. The habit of nursing the child whenever it cries, and of letting it lie at the breast practically all night, renders a nipple much more liable to infection on ac-

count of the maceration caused by the child in its efforts to obtain milk. For this reason regular hours of feeding, both day and night, should be insisted upon.

For the cure of a large and painful nipple-wound a properly fitting nipple shield is at times indispensable. The same law concerning surgical cleanliness should of course be strictly adhered to in the use of the shield. It should be thoroughly washed and boiled between each nursing.

In regard to the treatment of breasts during the *puerperium*, I can not do better than to follow that laid down by Dr. Brodhead, Professor of Obstetrics in the New York Post Graduate Hospital. I will consider first that class of cases in which the woman for various reasons does not nurse. A tight breast binder, or better still a roller bandage, should be applied immediately after nursing, or in case of still birth, on the second day after labor. Cotton should be placed around the breasts and in the axilla and the bandage should then be applied as tight as the patient can bear. If it becomes loose it should be tightened immediately and should not be removed until the breasts are soft and painless. In most cases the tight bandages alone will be sufficient; but when the breasts become tender and caked in spite of the bandage, it will be necessary to limit the amount of fluids given the patient and administer large doses of salts to relieve the distention. Salts should be given every hour till the bowels are freely evacuated. This should be repeated each morning till the breasts become soft. Atropine in doses of 1-100 of a grain three or four times a day is of great advantage in these cases.

An opiate may be required for one or two nights as the pain is at times very severe.

So much for the treatment of the breasts where the patient does not nurse. For the *nursing mother*, in most cases nothing will be required beyond supporting the breasts between nursings with a moderately firm binder. This should not be too tight for fear of drying up the milk, but just tight enough to support the breasts on the front of the chest, thereby preventing the pendulous position which is so often the cause of caked breasts. When there is distention with a tendency to caking, the binder should be drawn somewhat tighter between nursings and the breasts carefully massaged with clean hands, every three or four hours as the occasion may demand. For this purpose a lubricant such as olive oil should be used. Here as before, fluids should be taken in limited amounts and salts administered freely to relieve the distention.

Should there be a sudden marked rise of temperature accompanied by acceleration of

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pulse, infection of the breasts is to be strongly suspected. Examination in these cases will usually reveal pain, swelling and localized tenderness in one or both breasts. The attack is frequently ushered in by a chill. When pus forms fluctuation may usually be detected and a deep red discoloration of the skin is observed at the place where the pus comes nearest the surface. Fluctuation may be absent in deep seated suppuration. Dr. Van Cott divides mastitis into three varieties: glandular, sub-glandular and sub-cutaneous. In the sub-cutaneous form the lesion is usually single and differs little from a superficial abscess in other parts. In the glandular form there is more pain and there are more constitutional symptoms than in the sub-cutaneous variety; chill is usual and the lesion is often multiple; the gland is indurated. In the sub-glandular form the pain is deep seated, temperature high and gland not indurated. When suppuration occurs it takes place between the gland and pectoral muscles, floating the former upon its surface. Dr. Brodhead claims that even where infection has taken place and we have the painful indurated area with increased pulse rate, rise of temperature and perhaps a chill, the inflammatory process can be checked and a cure brought about by careful treatment. He believes massage to be of the greatest value. It should at first be made lightly then gradually with more pressure, the aim being to bring the pus from the gland to the nipple, there to be sponged away. The pain is often great, but the patient usually prefers to have it done rather than take the chances of having an operation performed. This treatment is applicable only to the glandular variety, where the pus is located in the ducts themselves. Massage should be used every three or four hours and during the intervals the breasts should be supported and an ice bag applied to the affected side. Here again large doses of salts are of great value. Where treatment fails, the area of inflammation increases and the skin becomes reddened, there is necessity of free incision and an anesthetic is required, except in simple sub-cutaneous abscess. The incision should radiate from the nipple so as to cut as few ducts as possible. If the abscess be large, counter openings should be made at remote points. The finger is then introduced and the cavity thoroughly explored. It is then irrigated with a normal salt or weak bichloride solution. A drain of iodoform on sterile gauze is then inserted and a sterile gauze dressing applied. The dressings should be changed and the wound irrigated daily for a week or ten days. By the end of this time the incision may generally be allowed to close.

DISCUSSION OF DR. COLEMAN'S PAPER.

Dr. Henry E. Tuley, Louisville: Dr. Coleman laid very little stress on the importance of the routine examination of the breasts of every primipara. Such an examination is especially important in the case of women who as young girls were in the habit of wearing tight clothes which by exerting pressure on the breasts depressed the nipple, resulting, as is frequently the case, in making of nipples, which otherwise would have been serviceable, depressed or flat. The attempt of the child to nurse, tugging at these nipples, is the cause of fissures. The prevention of these fissured nipples is very much better than the treatment of them, because of the very great pain which always results whenever there is a fissured nipple present. I do not believe that the pain of labor is equal to the pain resulting from these cracked or fissured nipples. The mother shrinks from nursing her child because of the pain.

The treatment of the nipple advocated by Dr. J. Milton Mabbott, of New York, was the use of lanolin for two months before the confinement. This treatment has yielded good results in my hands and is worthy a more extended trial at the hands of the profession. At night, before retiring, rub into the nipple and the primary areola around it a small piece of lanolin. In the morning the woman washes off this lanolin with plain superfatted soap and a coarse bath towel, using enough friction to remove the soap. This resembles very much the same kind of process which is present when the child is put to the breast.

Another very valuable procedure is one which was first brought to my attention by a nurse of great experience. She never put any of the babies she nursed to the breast, unless ordered to do so by the physician, during the first two days of the puerperium. She claimed, and I think rightly, that this tugging at the breast, when nothing is there except the colostrum, resulted in a stretching of the skin and a subsequent cracking of it. I generally put the child to the breast for the purpose of obtaining the colostrum, about four or five hours after the delivery, and then not more than three times in twenty-four hours until the milk appears. This prevents this tugging and the inevitable cracking of the skin. During the first two days there is nothing in the breast to be gotten except the colostrum, which is obtained easily after the first few nursings.

The use of nitrate of silver after the nipple is cracked, no matter whether at the base of the nipple or across the top, is the best possible treatment. It forms with the albumen present in the serum of the blood a very thin pellicle which allows healing of the abraded surface. It keeps out the air, prevents pain, and allows the wound to heal by granulation from the bottom.

When a fissure is present, the child should not be allowed to nurse directly from the nipple. A glass nipple shield should be used. When there is a beginning infection, pressure and massage should be used, and, I believe, that in many cases we can prevent these infections from going on to suppuration by this procedure. I do not believe that a beginning infection is a contraindication to putting the child to the breast. In fact, it is a very good plan to do so, one that should be encouraged, because the assistance the child gives in the drainage of the breast must not be underestimated.

If an abscess forms, a free incision should be made; incisions and counter openings, where necessary, to permit of perfect drainage. An exploration should be made with the finger for the purpose of breaking up all pockets and establishing thorough drainage. If this is not done, in all likelihood the patient will have to be operated on again and subjected to great torture. Drainage is most important, as is also the application of pressure afterward so as to cause a collapsing of the walls of the abscess and prevent a reaccumulation of the pus.

Dr. C. Z. Aud, Cecilia: My experience has shown me that these cases of cracked nipples occur in persons who have psoriasis. Their skin will crack open anywhere when it is exposed to cold dry air after having been immersed in water. The child takes hold of the nipple and sucks it, wetting it, and as soon as the skin dries, it will crack open.

If that is true, how are you going to prevent such an occurrence, and can you always prevent it? You can prevent it. I never leave a woman after confinement without telling her to pay particular attention to her nipples. I tell her never to let them dry, after nursing the baby, without cleansing them thoroughly and putting on some oil or oily substance **while they are still wet**. Then you will not have any trouble with cracked nipples. When I wash my hands in water in winter without protecting them afterward, I have to suffer like the woman with the cracked nipples.

Dr. James B. Bullitt, Louisville: A personal experience is a very convincing one, and I am sure that if Dr. Aud has tried this very excellent method, and it has kept his skin from cracking, we all ought to try it.

I wish to mention two points. First, I wish to lay stress on the very sensible remarks made with regard to the proper method for drying up a useless breast. We all have observed that nurses, and some doctors even, are inclined to adopt the wrong method in drying up the breast, namely to massage the breast, which is the very best procedure for increasing the flow of milk and making it stay there after it arrives. Dr. Coleman said that the best thing to do is to strap the breast and to leave it quiescent, not to massage it

at all. Massage is used for a different purpose. We should bear this in mind and instruct our nurses as to what is to be done, otherwise the nurse, in her honest efforts to dry up the breast, will massage it diligently.

Second: sometimes in a case of multiple abscess of the breast it will be found advisable to make such an incision as has been advocated recently by Dr. J. Collins Warren, of Boston, for the excision of multiple cysts of the breast. Instead of making many incisions in the outer surface of the breast, make one incision at the lower margin, at the line of the fold of the skin where the breast comes off from the thorax. Then turn up the breast, and the multiple abscesses can be incised from that one location. Drainage is always downward, and you avoid multiple scars of the breast which are disfiguring and which interfere with the future usefulness of the breast. This treatment is not suitable for all cases, but in selected cases it is very useful and it is well to keep it in mind.

Dr. W. W. Anderson, Newport: We must be careful of the infected mouth. Bacteriologically speaking, all mouths are infected, but I have particular reference to soremouths-stomatitis. Almost every nipple, especially the nipples of a primipara, will be found to have microscopic crevices, and I am convinced that many abscesses and infections of the breast result from the licking in of the germs contained in a sore mouth. A baby with a sore mouth ought to nurse through a nipple shield until its mouth is entirely well.

Dr. Wm. H. Wathen, Louisville: The paper deals with the subject so scientifically and practically that it leaves but little to discuss. It shows that the doctor has not only a correct scientific knowledge of the subject, but that he has evidently had an extensive practical experience in the application of the methods advocated.

We who have to deal with diseased breasts can appreciate the value of such a paper, the prevention of these unfortunate diseases that are sometimes so troublesome to cure. The question of stopping the secretion of milk where the woman is not to nurse her child is, I think, settled. The only method of value is that of exerting equal pressure on the breast. It may be well sometimes to put some oily application on the breast and over this cotton wadding, but in any event the breast must be pulled well up and held firmly against the chest just at the time that it is beginning to enlarge, either by means of a binder or by adhesive plaster. Then we will not have any abscesses develop later on.

We must remember that in opening these abscesses, just as Dr. Bullitt suggested, each case must be an individual case. In one instance you will open the abscess after one fashion, and in another instance after another fashion. If the abscess is located in the tissues above the gland

it is nothing more than opening a furunculous abscess. Bring about perfect drainage and they will all get well. If the gland itself is deeply involved, then you must make the incision as a rule, from the base towards the nipple.

Dr. John G. Cecil, Louisville: I am in thorough accord with this paper. I believe that the simplest way of dealing with fissured nipples is to keep them clean, as was emphasized by the essayist, and a saturated solution of boric acid is as good for this purpose as anything. I have always been wary about using ointments about the nipple. They probably soften the tissues too much and thus rather encourage the formation of fissures, so that I make it a rule to let the breast alone, merely keeping it clean.

The application of nitrate of silver is most excellent. I differ, however, as to the treatment of abscesses involving the glandular structure of the breast. I believe that all breasts are infected through the nipple. Thus the infective material is carried into the interstitial tissue between the milk ducts. If that is the correct pathology of abscesses of the glandular structure of the breast, then I cannot agree with the statement that massage of the breast is the correct procedure. I do not believe that it is possible to dissipate an abscess in that way. It cannot be milked out through the milk ducts.

When I am dealing with multiple abscesses of the breast (and I am glad to say that I have not seen a case in a long time, and that is mainly due to the methods of prevention we have been carrying out by intelligent nurses), I make one big long cut extending from the nipple to the periphery of the gland, and break up with my finger every pus cavity that can be found, making one large pocket. Then I thoroughly cleanse the wound and put on a pressure bandage. That has given me the best results, and there is little tendency to the formation of a fistula.

Dr. E. T. Dunaway, Murray: I want to commend Dr. Coleman's paper. As to the prevention of abscesses, I want to give you a little of my experience. When I attend a woman in labor, one of the last things I tell her is to watch her breasts, and if there are any sores on the nipple, I have her wash them with a simple wash. If there is any caking of the breast, I have her put on a corset cover, drawing the breasts well up so that they will not be pendulous. If that does not stop the trouble, I have her anoint the breast with a lard-iodine ointment, and that has proven uniformly successful in my hands.

THE LEUKOCYTES IN DIAGNOSIS, AND PROGNOSIS AND SOME IN- DICATIONS FOR TREATMENT NOTED AS WE GO ALONG.

By J. D. MUTTERS, Rush, Ky.

It is our purpose in this paper to refer briefly to some interesting points concerning the white corpuscles of the blood which are of some value in diagnosis, prognosis, and treatment. Our information along these lines is derived from the study of pathological conditions of the leukocytes. In order to reach an intelligent understanding of pathological conditions it is necessary to know the normal—the physiological state. For our present purpose, we will adopt a classification which is the most useful and at the same time correct.

Normally there should be from 6,000 to 8,000 white corpuscles to the cubic millimeter of blood, and these should be, lymphocytes 25 per cent., larger mononuclear and transitional 5 to 7 per cent., polymorphonuclears (neutrophils) 60 to 70 per cent., eosinophiles 1 to 3 per cent., also the rare myelocyte. An increase in the total number of white corpuscles to the cubic millimeter of blood is termed a leukocytosis and is suggestive, but no more. It tells you nothing specifically; the increase may be physiological, if they are increased in their normal proportion—that is, if their normal percentages obtain. It is found in pregnancy, during the lying in period, in the new born infant, after exercise, after cold baths, after taking food, and just before death. On the other hand, if the normal proportion does not exist even though the total number to the cubic millimeter is not increased, it is pathological. Therefore, the essential feature of a pathological leukocytosis is shown by a disarrangement of their normal percentages; hence, to determine if the leukocytes are normal, make a differential count of them and find their percentages to each other.

In tuberculosis we have a leukopenia—a diminution of the total number of leukocytes to the cubic millimeter of blood. It has been observed in this disease, in a series of cases, showing 10 per cent. and under, small lymphocyte count, that about 1.2 per cent. apparently recovered. In another series showing from 10 to 20 per cent. small lymphocyte count, about 5 per cent. apparently recovered. In a third series of cases, showing 20 per cent. and above, small lymphocyte count, about 49 per cent. apparently recovered. Cases well advanced in convalescence showed increasing small lymphocyte count. A low lymphocyte count was as-

* Read before the Boyd County Medical Society, November 2, 1905.

sociated with feeble resisting power. Hence, it is reasonable to conclude that in this disease, the resisting power of the patient should be strengthened and the small lymphocytes increased. The measures for strengthening the resisting power are well known to all well informed physicians. The tuberculin treatment is said to be a process of gradual immunization; be this as it may, Boston says tuberculin will excite a lymphocytosis. The value of tuberculin properly administered, in the early stage of tuberculosis, before mixed (septic) infection occurs, is recognized. Use Koch's old tuberculin—Koch's doses were too large. Begin with 1-100 milligramme, give it hypodermically, (preferably between the scapulae) on alternate days, carefully increase the size of the dose, be sure that you never produce a reaction. It is argued by some that the use of tuberculin is liable to excite into activity latent foci of the disease, even convert a chronic into an acute miliary form of the disease; this is true if the remedy is improperly given. It is in the hemorrhagic cases that especial care must be exercised; in these cases, you will not be able to increase the size of the dose much above 1-100 milligramme until the patient is well advanced in convalescence.

In typhoid fever we have a leukopenia, and after the second week we have a lymphocytosis, which may reach 40 per cent. A knowledge of the existence of a leukopenia in this disease is, at times, valuable to the physician. In threatening perforation there is a limited adhesive inflammation of the serosa which may be sufficient to cause rather constant pain before perforation actually occurs. Perforation has been known to occur during the first week of the disease; therefore, if at any time during the course of typhoid fever should rather constant pain develop in the abdomen, especially in the right lower quadrant, the cause of which is somewhat obscure, make a leukocyte count and if you find a leukocytosis, and the condition of the patient does not otherwise contraindicate an operation, an exploratory incision is justifiable. Again, typhoid fever may simulate, or be simulated by, appendicitis and the differential diagnosis be difficult to make by the ordinary methods. Under such circumstances a leukocyte count will clear the diagnosis at once, for in appendicitis (save a few exceptional, fulminating cases), we have a leukocytosis.

In appendicitis due to infection, we have a disarrangement of the percentages. The polymorphonuclears are increased beyond their normal proportion, thus constituting that form of pathological leukocytosis known as neutrophilia, and it is a thermometer of the infec-

tion. (1) Increasing leukocytosis shows a spreading infection and an operation is urgently indicated. (2) Stationary leukocytosis shows a stationary, walled-off infection, and an operation is less urgent. (3) Gradually declining leukocytosis shows abatement of infection and operation is to be postponed to the interval of safety. (4) Sudden drop of leukocytosis to below the normal indicates fatal ending, the leukocytes have given up the contest.

The polymorphonuclear leukocytes are the soldiers of the body, they are the agents at work which circumscribe and wall off suppurating processes. From a clinical standpoint, the value of a neutrophilia is recognized. In many of the acute infectious diseases there is, at the onset, a leukopenia, and if this persists and a leukocytosis does not develop, the disease usually ends fatally; this is especially true of lobar pneumonia. Therefore, in severe cases of croupus pneumonia it is well to make a leukocyte count, and if you find absence of leukocytosis, give such remedies as nuclein, nucleinic acid, for it is said that these remedies will excite a leukocytosis and thereby favor recovery. In the two leukemias the blood findings are characteristic. In no other condition do we find the enormous leukocytosis which is present in the two leukemias. In the lymphatic variety we have fever, emaciation, and enlarged glands all over the body, in some cases simulating multiple sarcoma, tuberculous glands, or Hodgkin's disease. The blood examination clears the diagnosis at once; the leukocytes will be from one hundred thousand to two hundred thousand to the cubic millimeter of blood, and there will be 90 per cent. lymphocytosis. In the spleno-medullary variety we have an enormously enlarged spleen, simulating a tumor; there is no way to diagnose it physically. The blood count shows the leukocytes are increased to 500,000, and in some cases to 1,500,000 per cubic millimeter of blood, and the lymphocytes increased to 40 or 50 per cent., and the myelocyte, which is so very rare in normal blood, is found here in such numbers as to constitute 40 per cent. of the total number of leukocytes. The erythrocytes in these two diseases, are reduced on an average to 3,000,000 or less, to the cubic millimeter of blood.

If the few thoughts expressed in this paper prove to be the means of exciting sufficient interest to cause one or more of the members of this Society to take up blood examination, and make use of it, I shall feel myself amply rewarded for the amount of labor I have expended in the preparation of it.

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.*

By DR. GEORGE COWAN, Danville, Ky.

I propose to consider this code of ethics as it relates to consultations, and the enforcement of its provisions by the National Association, and the societies auxiliary thereto; and also as it affects the interests, both of the profession, and of the suffering, sick, and injured patients seeking professional care and help in the day of their distress, coordinately.

This code holds and endeavors to secure the profession and the public equally protected against the baleful designs and work of the quack, by requiring suitable education of physicians, by defining their duties to each other in their professional intercourse, to the profession itself at large, and to the public. Each separate interest or element in society is thus equally and reciprocally interested in each other in working out the common weal of each. The American Medical Association, therefore, has enacted for its government in all its auxiliary of tributary associations a Code of Laws which no member can ignore or violate and remain a gentleman in good and honorable standing, and worthy of recognition in consultations, or as a member of this general association, or any of its auxiliary branches. These laws are absolutely just and proper, and expressed in the most perspicuous, most concise, and accurate terms. In this respect it is a specimen worthy of study, simply as the model of the beauty, purity, and force inherent in the English language. And yet, "there is nothing connected with our profession concerning which there is so much dense (crass) ignorance among the masses as the Code of Ethics." This is true not only among all classes of the laity, but also not a few physicians, judging by their conduct, whether members of any of these societies or not. "The classes" as well as "the masses" of the laity, "the ignorant and the intelligent" regard it much in the same light that they would the constitution and by-laws which should govern a band of robbers. They look upon it as being the fundamental which governs a class of men who are banded together against society, and, in some way, this law is the expressed intention of the manner in which the conspiracy is to be carried out, the organization of medical societies and their active work only shows the active workings of the conspirators under this law—particularly by means of its schedule of fees. "So deeply rooted is this idea in the public mind that not a few of the quacks whom we have

known—quacks who knew more about the prejudices of people against "code doctors" than they did about practice—have taken the pains to proclaim through the newspapers, and in cards and pamphlets, that "The Doctor" did not belong to the medical societies, and is not bound by the Code of Ethics.

Many men have temporarily gained a good practice by pandering to this prejudice. Worse than this, however, members have been introduced into these societies claiming before the public membership with it and at the same time claiming that they are not bound by the Code of Ethics, either in their consultations, or in their support of the schedule of fees of their county society, and they not only violate all proper secrecy and rule of procedure in consultations, but consort and consult with all sorts of quacks forbidden by the Code, the apostles of all sorts of "pathies,"—provided there is the customary consultation fee in sight. All this confusion in the profession, and injury to it, is due to the fact that our profession is willing that the public shall remain in its pitiable ignorance of the conditions in the Code for it against the incompetence and ignorance of the various forms of quackery, and the misleading mendacious misrepresentations of unworthy and unscrupulous members inside the fold; reaping what benefit they may thereby, yet making constant war upon the Code, and those they choose to stigmatize as "Code doctors." They say it is a "pure matter of conscience" with them!

If the people were not thus misled, if they understood the Code as every enlightened, honorable physician understands it, self-interest alone would make them all most enthusiastic advocates of it; and for the very reason that while it is intended to hold their medical advisers strictly to a certain line of conduct in their intercourse with each other in consultation, at the same time it holds them to a very strict accountability for their professional knowledge and attainments,—their fitness in other words to practice medicine.

It may be urged that a gentleman does not need the Code. This is true. Neither do the healthy need a physician; nor do the saints in heaven need a savior. Unfortunately for our profession, we were all men before we were doctors, men as varied in our instincts, education, intelligence and desires as any other class of men. If we could make the *ideal doctor* first, and then make the man to fit him, we would need no Code. Unfortunately for doctors, some of them are not all that a doctor should be. The opportunities offered to take advantage of a fellow practitioner, and especially to take advantage of and to cheat a credu-

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lous and confiding public, are so many that many a doctor, not morally strong, but naturally weak and avaricious, takes advantage of them. For such the Code is made.

We cannot compel them to accept it any more than you can compel a man to be a Mason, an Odd Fellow or a Christian. But you can refuse a man Masonic or Christian fellowship if he is neither, and we can refuse a doctor our fellowship if he refuses to be one of us in spirit by subscribing to the fundamental law which holds us all to strict accountability for our conduct as medical men and gentlemen.

And yet we are blamed for this every day. Intelligent people who would never think of recognizing a man as a Christian who does not subscribe to the fundamental law of Christians—the Bible—will abuse and blame us for refusing to recognize and affiliate with a man who publishes his condemnation of our fundamental law—the Code. There is another class of anti-Code doctors, who indirectly and less openly, but yet probably more injuriously, handicap these associations in their efforts to maintain order and professional dignity and decorum in their midst by means of the Code.

Art I, of the Code (Duties for the support of professional character), is most shamefully and ruthlessly trampled under foot by that artful dodger, the advertising doctor. The town papers, street-corners, drug-stores, boarding-house and hotel dining-rooms, are the favorite bulletin boards upon which this cheerful champion liar of the world placards himself and his business. If he has any old sort of a call to be absent from the town twenty-four hours "he has been called in consultation in a neighboring town in a critical case of a prominent citizen." He is an optimist in his prognosis when called into a consultation with other doctors, but a veritable pessimist in his individual practice in all cases. In the latter, a simple case of bronchial catarrh is the beginning or the full development of a formidable case of pneumonia; letting up by degrees daily on the terror stricken friends, who in the end are made to believe that he has "pulled the patient through"—to use his slang—a very narrow and difficult crevice of safety. So, all of his cases of ephemeral febrile disturbance with borborygmi and pain in the right iliac region (the combined result of his suggestive punching and thumping) are typhoid fever cases. If he is to open an abscess, or excise a urinary caruncle from some woman's meatus, such procedures grow into the magnitude of "critical operations" in the news columns of the town papers. Or if a competitor's reputation can in any way be damaged by a stab in the

dark, his motto of action is "semper paratus,"—always ready.

The quotations in the above article are taken from Dr. Willis P King's "Stories of a Country Doctor."

RECOGNITIONS OF THE MANIFESTATIONS OF SYPHILLIS.

By W. H. McCRAKEN, M. D., Bowling Green, Ky.

The late lamented Horace Greely used to head his editorials, "What I Know About" this or that, whatever the matter under discussion. Had he been required to pose as a syphilographer for a while, it is reasonable to suppose that his writings might have lost some of their positiveness. My experience may not be yours, but when I was in the hospital I saw hundreds of syphilitics, at least so called, and they manifested the disease in every conceivable form. The matter almost boiled itself down to this: if a patient came in with any sort of a skin or mucous lesion, the rule was to look for traces of chancre, either genital or extra-genital. If you found such evidence, your diagnosis was clear, and if you didn't, the patient lied, and the case was most likely syphilis anyhow.

In private practice the foregoing method of diagnosis lacks some of the elements of success. The conditions are reversed. Then everyone was presumably guilty, now everyone is supposedly innocent.

Moreover, there are certain methods of investigation which were applicable to the unfortunates in the city, which one can scarcely apply to his eminently respectable patients in private practice.

My local experience in the matter of diagnosis and treatment has been gained largely from the young men who come here seeking to rob the tree of knowledge, and who in order that their education may be truly symmetrical experiment along the line of the social evil. Of course they come to grief.

When they appear for treatment, they usually have a more or less indurated sore on the penis, often beside the fraenum, and not infrequently present at the same time, what they call "little red bumps" variously scattered over their persons—notably favoring the scrotum. The history is apt to be indefinite. If a boy has been indecent once, he probably has been twice, and when people do not bathe, they are apt to be negligent of such minor details as skin eruptions. Frequently these patients have ulcerated mouths, but practically all people who live on the great American hog, and its accompaniments have stomatitis in some form. Sometimes there is lymphatic involve-

ment, and sometimes there is not. Now isn't that a pretty good picture of syphilis?

Yet I am sure I have mercurialized several of these victims when they never needed it. It is quite conceivable that a pre-existing erythema nodosum could have a local infection so grafted upon it, that it would present exactly the conditions enumerated.

The fact that some of these patients did well on mercury, while others failed utterly to respond to it, and apparently got well very promptly on salicylates, looks suspicious, to say the least.

It is a well-known fact that no two chancres look alike. Fournier mentions seven varieties, as follows: (1) Simple erosive, (2) Simple ulcerative, (3) Deep ulcerative, (4) Hunterian, (5) Herpetiform, (6) Diphtheric, (7) Tuberculoid. He might as well have mentioned seventy.

The period of primary incubation has been shown to vary from ten to seventy days. Chancre is usually single, but is not infrequently multiple. Immunity to subsequent inoculation is usual, tho' not invariable. Induration is usual, but variable in degree and extent. Local pain is unusual, and constitutional symptoms may or may not exist during this initial period, and if they do exist are in no way characteristic of the disease.

The second incubation period varies from 12 to 200 days. Toward the end of this time we may have lymphatic enlargement, noticeably of the cervical, axillary and epitrochlear nodes. Pain in bones and muscles, and severe headaches are observed in some cases. The classical symptom at this stage, however, is the rash, which, as is well known, may simulate any skin eruption known, and which fails to yield to the usual treatment of skin diseases. The earliest rash is apt to be a sort of roseola or an erythema; later we may have a rash resembling psoriasis (silvery scales, and all), and as the disease progresses any type of the severe skin diseases may be shown. A diagnosis should never be made from the skin eruptions alone, even though they do leave a coppery tinge when pressed upon. The throat should always be examined, and any lymphatic engorgement noted.

Tertiary syphilis is characterized by a multitude of possibilities. Its manifestations occur in about 12 per cent. of all syphilitics. The skin is the organ most commonly affected, and the classical lesion is the gumma. These gummata are connective tissue tumors, which, probably on account of defective nutrition, are prone to break down, and, if superficial, form ulcers which are sometimes serpiginous and which continue for years. They are most common on the legs, notably near the knee, are frequently multiple, often unilateral, and in healing form

a white scar surrounded by an extensive area of pigmentation.

I shall not attempt to enumerate other manifestations of tertiary syphilis. They are legion, and involve all the structures of the body.

Of late it seems to be pretty well proven that syphilis is the result of an infection, and various microorganisms have been exploited as its causes. It has been claimed also that certain microscopic changes take place in the blood of syphilitics. These I have been unable to observe, probably on account of faulty technique.

THE ORIGIN OF THE "RED CLAUSE."

(Extract of a speech delivered before the Proprietary Association of America by Frank J. Cheney.)

"We have had a good deal of difficulty in the last few years with the different legislatures of the different States. * * * I believe I have a plan whereby we will have no difficulty whatever with these people. I have used it in my business for two years, and I know it is a practical thing. * * * I, inside of the last two years, have made contracts with between fifteen and sixteen thousand newspapers, and never had but one man refuse to sign the contract, and by saying to him that I could not sign a contract without this clause in it, he readily signed it. My point is merely to shift the responsibility. We to-day have the responsibility of the whole matter upon our shoulders. * * * There has been constant fear that something would come up, so I had this clause in my contract added. This is what I have in every contract I make: 'It is hereby agreed that should your State or the United States Government, pass any law that would interfere with or restrict the sale of proprietary medicines, this contract shall become void.' * * * In the State of Illinois a few years ago they wanted to assess me three hundred dollars. I thought I had a better plan than this, so I wrote to about forty papers and merely said: 'Please look at your contract with me and take note that if this law passes, you and I must stop doing business, and my contracts cease.' The next week every one of them had an article. * * * I have carried this through and know it is a success. I know the papers will accept it. Here is a thing that costs us nothing. It throws the responsibility on the newspapers. * * * I have my contracts printed, and have this printed in red type, right square across the contract, so there can be absolutely no mistake, and the newspaper man can not say to me, 'I did not see it.' He did see it, and knows what he is doing. It seems to me that it is a point worth every man's attention. * * * I think this is pretty near a sure thing."—From Collier's Weekly, November 4, 1905.

PROGRESS IN PEDIATRICS.

By PHILIP F. BARBOUR, A. M. A., M. D.,
Louisville, Ky.

GONORRHOEAL OPHTHALMIA.

Dr. Charles H. May has an interesting editorial in the Archives of Pediatrics (November 1905) on this important subject. He finds that the prevalence of ophthalmia neonatorum has greatly diminished in the last decade owing to the more extensive employment of the Crede method of prophylaxis. "For many years he watched the effects of instillations of solution of protargol (25 per cent.) into the eyes of the new born; compared these with the results obtained when a 2 per cent. solution of silver nitrate was used, and came to the conclusion that in hospital practice at least the silver nitrate solution was the most reliable as a prophylactic agent."

He defines the indications of the inorganic or organic silver salts as follows:

The organic salts of silver are indicated in the early stage of the conjunctivitis, which period is marked by the occurrence of a profuse discharge; and the particular use which they subserve is the destruction of the gonococci. Experiments show that this germicidal action is just as efficient as with silver nitrate, equally penetrating and accompanied with no irritation or pain; hence such remedies can be used much more liberally and much more frequently than the nitrate. To be efficient, however, the solution of protargol or argyrol must contain from 25 to 50 per cent. of the remedy.

The solution of silver nitrate, on the other hand, answers an entirely different purpose; after the stage of purulent secretion has subsided and the conjunctiva presents the well known papillary appearance, a one per cent. solution of silver nitrate is indicated—not as a germicide, but as a stimulating and irritating agent, intended to bring the mucous membrane back to a normal state of smoothness; in this stage, applications of the stick of sulphate of copper will accomplish the same result.

The reviewer would urge the importance of the thorough cleansing of the hands as well as of the eyes in all cases, whether a gonorrhoeal infection is suspected or not. Many nurses wash the eyes of the new born very carefully, but pay no attention to the hands, which really come more directly into contact with the vaginal mucous membrane than do the eyes, protected as they are by the bony arches and by the complete closure of the lids. Unless some precaution is taken a baby will get its fingers into its eyes within a few minutes after birth.

In cases of premature birth, or when the baby is excessively feeble, the irritant qualities of silver nitrate render it unsuitable, as blind-

ness has sometimes resulted from its use under those circumstances.

THE NATURE OF THE ATROPHY OF INFANTS.

In the current issue of the American Journal of Obstetrics and Diseases of Women and Children is an abstract of an article on the above subject by Gustav Tugendreich. He says that a small number of writers hold that infantile atrophy is merely a symptomatic condition, such as we find in tuberculosis, hereditary syphilis, etc. The larger number of observers consider atrophy to be a disease in itself, which results from errors in nutrition and produces a definite clinical and pathological picture. Parrot considers atrophy a malady which has its point of departure in the digestive tube, and produces a profound disturbance of nutrition.

Primary atrophy is not the result of catarrh of the digestive tract, but of poisoning, the result of hunger. Hunger may arise from either too limited quantity or improper quality of food. There may be insufficient absorption. These children require so much energy for digestion of the food that none is left for its transformation into useful substances.

In many children the reason for a primary atrophy is a congenital weakness of the digestive tract. There may be a disproportion between the nourishment and the digestive secretions, or a disproportion between the material absorbed by the intestine and the biological forces which change it into cell protoplasm. (In this connection Rotch has shown that the fat per cent. should be reduced to 0.5 per cent., as offering less tax upon digestion than a corresponding diminution in the proteids.)

The secondary form is due to digestive disturbances. The whole intestine undergoes atrophy, the walls are thinned, the secretory cells atrophied. (And so are the absorptive cells). The modern theory holds that there is an acidosis, an acid poisoning. There is found an increase of ammonia in the urine of these infants, which indicates an increased production of acid in the system. The source of this acidosis may be the fatty tissues in the body. That atrophy is a cachexia, the result of deficient nourishment, and similar to other cachexias is the opinion of the author; it is not a true disease in itself. The author does not discuss the theory that atrophy may be due to the failure of absorption arising from the atrophied state of the cells which cover the villi of the intestine. Bunge has shown that the assimilation of the proper food products from the intestinal lumen is a vital process, the conversion of the peptone into serum albumin and the recombination of the fatty acids with glycerine being the result of the activity of these cells. The ability of these cells to perform their prop-

er functions is conditioned by their own capacity for work, which may and probably does vary independently of the general system and from causes of which we are as yet ignorant.

Whether this local atrophy is a result or the cause of the general cachexia is still a moot point.

UMBILICAL INFECTION.

C. Porak and G. Durante (Pediatrics, Jan. 1906) call attention to the dangers of umbilical infection in the new born infant. Premature infants are especially liable to infections of the umbilical site on account of their lessened resistance, and also from the slower closure of the umbilical vessels. Infection may occur in a number of ways, even during a bath. Infection of the cord itself usually causes putrefaction and delay in its separation. The umbilical region may be infected before or after the separation of the cord. Infection of the umbilical vessels may be primary or secondary to either of the above, and may be followed by septicemia, fatal in from two to five days. Normally, at the separation of the cord the vessels are not obliterated, and they are protected from external contamination only by a thin layer of cicatricial tissue, through which infection may readily take place.

The general symptoms consist of fever, persistent gastro-intestinal disturbance with green or whitish stools, jaundice and erythema. Is jaundice always a symptom of infection, and may it occur when there has been no infection? And if jaundice be present, should we open up the cord and examine for some infected focus?

The slightest forms of infection give rise to such clinical conditions as gangrene of the cord, granulations about the umbilicus, seropurulent discharge or actual hemorrhage, though in all these there is danger of septicemia. Erysipelas and tetanus are not so common as formerly, but are still encountered at times. In order to avoid infection of the umbilicus, care should be taken to prevent contamination of the cord. It should be dressed with dry sterile gauze or wool which should be renewed when soiled, and continued some time after the separation of the cord. In the less severe cases antiseptic dressings are usually efficacious, but in the graver septicemic conditions treatment must be symptomatic and is often powerless to avert a fatal issue.

PROGRESS IN DISEASES OF THE EYE, EAR, NOSE, AND THROAT.

Under Charge of ADOLPH O. PFINGST, M. D.,
Louisville, Ky.

PAPILLOMA OF THE LARYNX IN CHILDREN.

Boston Medical and Surgical Journal, Oct. 5, 1905.—The writer collected 14 cases of papilloma of the larynx in children from Massachusetts General Hospital.

Of these 9 were boys and 5 were girls. One case, according to the parents, dated from birth. In another case the symptoms began at the age of three months. Five other cases were two years old or under when they first showed evidence of laryngeal trouble. Of the remainder, one was three years old, one four, two five, one six and two eight years old when the first symptoms appeared. The time elapsing between the appearance of the first symptoms and application for treatment varied from four months to four years and nine months. In the majority this period was from one to three years. In one case, the symptoms began to appear after an attack of measles, in one after whooping-cough and in one after grippe.

Treatment without previous tracheotomy was attempted in 4 cases. One of these died under the operation, one was lost sight of, one was successful and one, after several successful operations, required tracheotomy for a sudden attack of dyspnea during an operation. Preliminary tracheotomy was done on the 10 remaining cases. Of these latter 4 died; 3 of bronchopneumonia, and one of suffocation after a difficult second tracheotomy.

The cases were all operated upon by the intra laryngeal method, small alligator forceps and curettes being employed. In view of the fact that it is impossible to tell in a given case how attempts at removal will affect the papilloma, and in view of the fact that in the large majority of cases such attempts affect it unfavorably, the best procedure seems to be to follow McKenzie's rule to open the trachea in every case whenever complete permanent aphonia is present.

Mackenzie favored tracheotomy and non-interference with the growth. He has reported 7 cases treated by this method, five of which completely recovered after wearing the tube from six to fifteen months. He is of the opinion that original cases are more rapidly benefited by tracheotomy than those who have undergone thyrotomy or endo-laryngeal operations.

Children can, apparently, wear a tracheotomy tube with comfort and without interference with the health for years if necessary. If the growth does not disappear under the Mc-

Kenzie treatment and persists after an age where the child can be treated as an adult, it has probably lost its activity of reproduction and attempts at its removal may be made.

A CASE OF LARYNGEAL DIPHTHERIA NECESSITATING INTUBATION, COMPLICATING CEREBRO-SPINAL MENINGITIS IN AN ADULT.

By W. K. Simpson, New York Medical Record, September 16, 1905.

This case was reported to illustrate the co-existence of the two diseases and the negative effect of the anti-diphtheritic serum on cerebro-spinal meningitis. The patient, a woman of 27 years, had been ill for 22 days when seen for the first time by Simpson, having had all of the classical symptoms of cerebro-spinal meningitis, namely, eruption, stiffness of neck, prostration, restlessness, photophobia, delirium, Koenig's sign, exaggerated reflexes, irregular pulse, elevated temperature, etc. When seen by the author the patient was hoarse, had a croupy cough and considerable laryngeal dyspnoea. Examination showed the lumen of the larynx filled with a distinct, thick membrane which was impeding respiration. Dyspnoea increased, necessitating introduction of a tube which gave marked relief to the difficult breathing. Anti-toxine was administered and continued for nine days, 30,000 units being given within that period. Soon after the first dose, large pieces of membrane began to be expelled through the tube from which pure cultures of the Klebs-Loeffler bacillus were procured. Inasmuch as this case occurred at the time when the treatment of cerebro-spinal meningitis by the injection of anti-diphtheritic serum was being advocated, the effect upon the meningitis was carefully watched in the case. It seems that no appreciable effect upon the course of the meningitis followed the use of serum. On the contrary, after the use of considerable serum the fluid drawn off by lumbar puncture contained the characteristic meningococcus intracellularis, and the subsequent progress of the case was marked by continuance of bad symptoms and final death.

EAR COMPLICATIONS OF CEREBRO-SPINAL MENINGITIS.

By Christopher J. Colles, New York Medical Record, September 9, 1905.

The indefinite reference of the earlier writers to the ear complications coming on during cerebro-spinal meningitis was the author's incentive to investigate this subject. Recent observers have been more explicit and have called special attention to the loss of hearing occurring among cases of this disease, modern statistics showing that one-fifth to one-sixth of all cases of acquired deafness are due to cerebro-spinal fever. It is also known now, that

many deaf mutes owe the origin of their condition to an attack of cerebro-spinal meningitis during infancy.

Opinions seem to vary as to the seat of the lesion in these cases. Some believe that inflammatory lesions at the acoustic center in the brain or along the course of the nerve of hearing might be responsible for the loss of hearing. As evidence that the lesion is not central, Gruening has obtained by electrization the normal reaction of the auditory nerve within the cranium. If the lesion lies along the course of the auditory nerve, it would be reasonable to expect simultaneous lesion of some of the other cranial nerves. The generally accepted idea to-day is that the causative factor is inflammatory conditions of the labyrinth. This opinion is borne out by post-mortem evidences of inflammatory conditions. The probable route by which infection spreads is from the extra-labyrinthine intracranial spaces and the perilymphatic and endolymphatic spaces of the labyrinth.

Acute inflammation of the middle ear is another aural affection frequently observed by the author in cases of cerebro-spinal meningitis. It usually subsides without impairment of the hearing, but in some cases the inflammatory changes have been so extensive as to greatly impede the movements of the ossicles. While the function of hearing in such cases is markedly interfered with, these changes cannot account for the profound and complete deafness so often met with. Otologists are agreed that the labyrinth is the main seat of the trouble in these cases.

The outlook for recovery of hearing is a grave one. Occurring in early life, even after the child has learnt to speak a few words, the patient usually becomes mute as well as deaf, the few words learnt by the child being soon forgotten. Treatment is unsatisfactory.

VERTIGO OF AURAL CAUSATION.

By Clarence John Blake, Boston Medical and Surgical Journal, October 5, 1905.

In reviewing the subject of the aural causation of vertigo, Blake comes to the following conclusions:

1. That in view of the existing knowledge of normal conditions in the semicircular canals, vertigo, of aural causation, may be regarded, primarily, as a pressure symptom.

2. That pressure may be exerted upon the labyrinth by forces operating from without as the result of changes in the middle ear transmitting apparatus.

3. That it may be produced from within by invasion of the intracapsular space, as in the case of hemorrhage into the labyrinth.

4. That the effect upon the semicircular canals of intralabyrinthine pressure thus produced will depend, as to its intensity and dura-

tion, upon the locality and extent of the hemorrhagic invasion.

5. That the recurrent vertigoes are the result either of an excessive intralabyrinthine vessel dilation, from suspense of vasomotor inhibition of reflex origin, either alone, or coupled with a persistent intralabyrinthine pressure, of either extrinsic or intrinsic origin.

INTRACRANIAL COMPLICATIONS OF EAR DISEASES.

By J. F. Barnhill, Indianapolis Journal of A. M. A., November 11, 1905.

Prefacing his paper with some brief statistical statements the author discusses the conditions of sinus thrombosis and brain abscess complicating acute or chronic ear diseases. In view of the fact that without treatment these conditions are almost invariably fatal, their early diagnosis is most important, and the history of earlier ear disease, though present symptoms may be lacking, should invariably be looked for. Sinus phlebitis or thrombosis may come from other causes, such as deep infections of the neck or infections of the nasal sinuses, etc., but it is most frequently the result of ear disease, which is often present. In its later stages, it is easily recognized by its attending general pyemic condition, but its early diagnosis may be difficult. When, however, with persistent ear discharge and simple mastoid inflammation, the patient's symptoms seem to be more serious than the local conditions alone would warrant, Barnhill thinks that exploration of the mastoid is entirely justified, and that even if it fails to reveal sinus disease, it is still a prophylactic measure of the greatest importance. Without the drainage thus afforded, the possibility of sinus involvement is vastly increased. The later cerebral symptoms, together with the general pyemic condition, indicate mischief already done, and calling for prompt relief. Outside the skull the occurrence of edema behind the mastoid swelling, along the course of the internal jugular, and edema of the eyelid have valuable diagnostic bearings, but the most characteristic symptoms are the high temperature with remissions and septic chills. Any of these symptoms occurring with persistent ear discharge, or with a violently acute otitis, should suggest the possibility of sinus involvement. Sinus thrombosis may be mistaken for malaria, typhoid or acute tuberculosis, and in children for acute digestive disturbances. The differential diagnosis, however, should generally be practicable. The symptoms of brain abscess also are more or less indefinite, but the cerebral symptoms, the headache, the subnormal temperature and pulse, and exaggerated reflexes and vomiting are rather more prominent and constant. An abnormal, irritable disposition, he thinks, has some diagnostic importance. Brain abscess

may follow long-continued chronic ear disease or an acute attack. Vomiting is a prominent symptom, occurring in nearly all cases, and the eye fundus may give important evidence as changes are noticed in about one-half of the cases. A brain abscess, however, may be latent as to symptoms and exist for a long time unsuspected; Barnhill believes that with more careful ear examinations and observation of general symptoms this would not often be the case, and the needed surgery could be done in time.

LOCAL ANESTHESIA IN MAJOR AND MINOR OPERATIONS ON THE EAR.

By G. P. Marquis and O. H. Kraft, Journal of A. M. A., April 22, 1905.

The authors describe a method developed by Newmann, Politzer's assistant, by means of which almost any operation can be performed on the ear without more than passing inconvenience to the patient. The patient is given a meal preparatory to the operation, experience having shown that cocaine is less toxic just after a meal.

The following three solutions should have been previously made:

- (a) One per cent. solution of eucaïn in distilled water with five drops tonogen to each c.c.
- (b) One per cent. solution of cocaine in distilled water with five drops tonogen to each c.c.
- (c) Solution of cocaine, 20 per cent.

The solutions are employed at a temperature of 40 degrees to 50 degrees, C, the anesthesia being most rapidly completed with the fluids at this temperature. The hypodermic needle is introduced over the mastoid through the periosteum and 1 c.c. of eucaïne solution injected. Similar injections are made along anterior and posterior walls of the mastoid. Then with a speculum inserted into the meatus, 1 c.c. of cocaine solution is injected into the superior wall of the ear canal at the point of junction between the bony and cartilaginous portions. Similar injections are made in the inferior, anterior and posterior walls. A pledget of cotton saturated with a 20 per cent. solution of cocaine is packed into the tympanic cavity through the perforation in the drum.

Eucaïne is given the preference over the mastoid on account of its greater safety, and cocaine in the ear canal, as its action persists longer. At the completion of the injections the patient is placed in the recumbent position to await the anesthesia which is established in 15 or 20 minutes. Nausea and headache, which usually come on just after the injections, are combated with hot coffee and brandy. A radical operation can then be undertaken without pain to the patient. The authors suggest that the chisel be held as flat as possible to avoid

concussion. They are convinced that with the possible exception of children and hysterical subjects, nearly every patient can be operated upon by this method. The method is also adaptable to acute cases of mastoiditis, injections into the ear canal being dispensed with in these cases. The method reduces the extraction of the malleus and incus to minor operations, and allows the operator to examine with the probe parts of the ear which was formerly not possible.

THE MEDICAL NEWS.

It is with regret that we read the announcement that our old friend, *The Medical News*, is to pass out of the hands of the Messrs. Lea Brothers and Company into that of the A. R. Elliott Publishing Company on Jan. 1, '06.

The attitude of the latter concern in the matter of nostrum advertising is well known and we believe thoroughly disapproved by the medical profession, and we doubt whether the *News* will ever do as well under the new management as it has done in the past.

The day of the privately owned weekly medical journal is passing away. Its place will be taken by the *Journal of the American Medical Association* and the various State *Journals*.

Like the medical colleges of the present day, only the very best and the very worst can live. Mediocre medical institutions are not wanted, so the privately owned respectable journals are ceasing to pay as an investment. They are too expensively run to admit of them being sold for a dollar or two a year, and they are not sufficiently large and interesting to compete with the *Journal of the American Medical Association*.

Furthermore, the profession is awakened to the fact that all of these privately owned journals are managed primarily for the profit of their owners and secondarily for the true interests of the profession. Their circulation and influence are bound to decline, especially when published by a business house willing to defy and deride the movement, now so successfully launched, to purify the advertising columns of the national and state journals and to keep them pure.

The good will of the profession must be behind any journal, if it is to succeed, and we think that the management of the *New York Medical Journal* has forfeited this good will.
—Jnl. Med. Soc. of New Jersey.

OBJECTIONABLE ADVERTISING.

C. S. N. Hallberg, Chicago, H. W. Wiley, Washington, D. C., and H. C. Wood, Jr., Philadelphia, give accounts of cases illustrating fraudulent claims of patent medicines, complexion powders, etc., and notice certain rulings of the Postoffice Department and of the law officers of the government. For a time the Postoffice Department prohibited the sending of poisons through the mail. Influence has been brought to bear, however, and the ruling was changed so that it is possible to send any poison through the mail, provided it carries the label or superscription of the manufacturer or dealer. The authors call the attention of the department to the fact that in almost every State poisonous remedies must be marked with poison labels indicating their dangerous character, and it would be well for the Postoffice Department to follow their example. The ruling of the Department of Justice in regard to the withdrawal of mail privileges is rather loose, and many fraudulent medical concerns are working under it with impunity. The difficulty of obtaining legislation to mend the matter is chiefly in the fact that many of the senators and representatives are themselves the dupes of these concerns, believing that they really have some virtue.—*Journal A. M. A.*, September 16th.

THE PHYSICIAN'S POSITION IN THE BODY POLITIC.

H. B. Ellis thinks for a physician to neglect personal attention to civic and political problems is selfish and unjustifiable. He should endeavor to raise the standard of health, education, art, and honesty in the region in which he resides. His membership on school boards is an undoubted advantage to the public. The medical inspector should be directly under the school board and not under the Board of Health as the latter reports only about one-seventh of the cases of contagious disease. Every school, college, and university should have competent teachers for a carefully developed course in hygiene. Except in a few States it is impossible for health officers to obtain any preparation for their work except such as they themselves elect. Dealing with disease is more complicated than dealing with crime; 50 per cent of theologic and 20 per cent of law students have an academic degree, while this is the case with only 7 per cent of medical students. The more thorough the doctor's training the better fitted will he be to assume civic obligations. The general average of education has increased faster than the standard in our own profession. Organization is another essential to proper advancement and political recognition.—(Ex.

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EXTRACTS FROM GOV. J. C. W. BECK- HAM'S MESSAGE TO STATE LEG- ISLATURE, JAN. 2, 1906.

ASYLUMS FOR THE INSANE AND FEEBLE-MIND- ED INSTITUTE.

The three asylums for the insane, one at Hopkinsville, one at Lakeland, and one at Lexington, are all in very good condition and the officials in charge of each have been discharging their duties and responsibilities in a capable and satisfactory manner. They are now all men of special training and fitness for their work, and the unfortunates under their care are receiving the best possible treatment and attention. I hope your committees will visit each one, as well as all the State institutions, as early as possible, that you may be informed of the conditions and needs of each in plenty of time to take such action as you may deem best. I would not advise you to appropriate any money to any of them except where you believe it to be actually necessary, and you will have no serious difficulty in finding out their real needs. As a general rule in these matters, the local boards of control ask for more than is needed, for each board, in its desire and earnestness to see its own institution enlarged and improved, frequently seeks to outbid its rivals, regardless of the condition of the source from which the money is to come, and feeling no responsibility as to the management of the State's finances. I do not say this in the least to criticize the many excellent and honorable gentlemen who serve on these boards without pay. The men are all right, but the system is extremely bad, and the local boards should be abolished.

What I have said about these insane asylums applies also to the Feeble-minded Institute at Frankfort, the plan and scope of which should be changed and broadened. At present, under the law, its sole purpose is "to educate idiot children," a psychological and physical impossibility, with the vain hope of fitting

them for the responsibilities of citizenship. It is perfectly right that these idiot children should be cared for and given such manual or other training as they may be capable of receiving, but it should be a permanent home for them, and they should not be sent back into society to propagate their weakness. I desire to consider another subject in connection with this, and that is the law in reference to the support by the State of pauper idiots. The State pays \$75 annually to each person adjudged to be a pauper idiot, and this has grown to be a wasteful and abominable pension system. The charge upon the State from it is growing heavier each year, and the last fiscal year it reached \$163,241. Now I assert that at least half of this amount is recklessly thrown away, and the counties would not put any undeserving claimant upon this roll if the counties had to share the burden, as they ought to do. It is very easy for some people to be charitable when the cost is paid somewhere else. I have heard that Kentucky is about the only State that has such an unwise law. I suggest two plans, by either one of which this evil can be cured and much money can be saved the Commonwealth without our avoiding any just obligation to this unfortunate class of people. First, amend the law by providing that in each case the county shall pay one-half the allowance before the State shall be called upon to pay the other half; or, second, build an addition to the Feeble-minded Institute and require that the idiots be sent there. It would reduce more than half the list and be a saving to the State. I recommend, therefore, that if you do not adopt the first proposition, you appropriate a sufficient amount to enlarge that institution so as to receive these idiots and also receive from the insane asylums a class of harmless incurables, and thereby relieve those asylums of a constantly increasing demand upon their capacity. Such an appropriation would be a matter of economy as well as improvement.

I further recommend that you change the law of management of these four institutions and place them in the hands of a State Board of Control, to be appointed by the Governor and confirmed by the Senate. In my regular message to the General Assembly of 1902 and also of 1904, I gave at length my reasons for favoring the change, and I would respectfully request that you refer to those documents.

With the light of a longer and broader experience, I am more convinced than ever that such a change ought to be made; that it would greatly improve the management of these institutions and save large sums of money to the Commonwealth in the cost of running them. The trivial and selfish objections urged

against this measure in the past can be easily met and should have no weight with those who have an honest desire to improve the public service of the State.

BOARD OF HEALTH.

The success of the State Board of Health, through its efficient Secretary, is deserving of our highest praise and commendation. There is no other secular work so important. The public health should be our first consideration as responsible officials. All other industrial questions are subordinate to it. The prevention of disease, the suppression of epidemics, deserve our attention as much as anything else. Medical science has taught us that most of the diseases and scourges which are so fatal among us are preventable and, in many instances, curable. To prevent the spread of diseases, and to enforce proper hygienic regulations the power of the law is frequently necessary. Your State Board of Health has handled these questions with wisdom and success. Their skillful policy in dealing with the yellow fever epidemic during the past year and in preventing the disease from getting the slightest foothold in Kentucky, while generously inviting the fugitives from the infected districts to come here, is a splendid tribute to their judgment and professional knowledge. The board should have all necessary power to protect our people from the spread of disease and to enforce every essential regulation to prevent it. If the condition of the treasury should permit, I would advise you to appropriate a sufficient sum of money to maintain a home for the care and treatment of those afflicted with tuberculosis. It is the most deadly and destructive disease we have, and yet it is now established that it is both contagious and preventable, and if treated in time, curable. There is as much reason for the State to take care of and isolate the consumptive as there is for it to do so with the insane or feeble-minded. It would be a double benefit to society, first, to cure, if possible, and restore a citizen, and second, to prevent, in a measure, the spread of a fearful and contagious disease. If you find it possible to adopt this suggestion, I advise you to refer the matter to the State Board of Health for such steps as might be necessary to carry out the plan.

The above extracts from Governor Beckham's Message indicate very clearly that he is cordially in accord with the medical profession of Kentucky. His recommendations in regard to the Insane Asylum and the Feeble-minded Institute are substantially the same as those presented to the Association by its committee in October.

His commendation of the work of the State Board of Health shows much appreciation of the active and efficient work of the Board.

The recommendation that a sufficient sum be appropriated for the establishment and maintenance of a State Sanatorium for the treatment of tuberculosis is probably the most important subject dealt with in his Message in which the medical profession is specially interested. This and the proposed State Board of Control for the eleemosynary institutions should have the earnest support of the physicians of the State, who should see to it that their representatives, in the legislature have a proper understanding of these matters and of their sentiments.

THE POSSIBILITIES OF COUNTY SOCIETIES.

Many of our Kentucky doctors are disposed to look upon the County Societies in a perfunctory way, as a sort of necessary evil, to be tolerated and supported just far enough to gain entrance into the State Association and the American Medical Association. Quite a number of our best counties have dormant societies whose members think it is not worth while to make an effort to do anything more than collect annual dues and elect officers. Such doctors have a similar feeling about the practice of their profession—they only feel the necessity for a stock in trade very much like that carried by the country store, just equal to the wants of the people, and about what they can afford to pay for. We are all very familiar with the picture of what such methods of practice lead to.

Contrast with this the story of the work which is being done by the country county in Indiana, as set forth in the letter published in our January number from Dr. D. J. Loring, of Valparaiso, Ind. And there are other county societies scattered here and there through the States which are working in like manner. One of our Kentucky County Societies has adjusted itself to take up the same kind of work. Will not others follow suit? Shall we not rather make our county societies living realities than dead emblems? It can be done in every county in Kentucky.

SUPPORT FOR ADVERTISERS—HELP THE JOURNAL.

Every advertisement which appears in the Journal has been scrutinized and found suitable for appearance in the columns of the Journal. Many advertisements have been refused, or, having been carried for a time, have been dropped because not conforming to the

decisions of the Council of Chemistry and Pharmacy A. M. A. Have we not the right, therefore, to ask our subscribers to support our advertisers? They are worthy, and we bespeak it for them.

Further than this, we want the members of the Kentucky State Medical Association to help us lead other good manufacturers into our columns. Give detail men and others to understand that if their products are all right, you expect to find them in the columns of the Journal. All such products offered for advertisement will be passed upon by the Council of Chemistry and Pharmacy A. M. A., and if they then appear in our columns you can feel assured they are all right. At the present time there are, of course, many good products which have not sought us out; but we want them, all the good ones, and you can render a very substantial aid to us in getting them.

The fight is on between the good and the bad, and we want all the good, so that we may be enabled to carry on the fight against the bad.

BIOGRAPHICAL CARD, INDEX AND DIRECTORY.

Since the American Medical Association began the work of accumulating personal information from the members of the medical profession for the biographical card index and the American Medical Directory, many inquiries regarding these new lines of activity have been received. Physicians all over the country have asked, "What is the biographical card index and what is its purpose? How will the American Medical Directory differ from other Medical directories?" The following is presented to answer these and other questions relating to the subject and to obviate necessity of replying to each individual inquiry.

In order to understand the object of this work, it is necessary to examine carefully the present condition of the medical profession from a social and economic standpoint. The last century, and particularly the last twenty-five years, have witnessed a remarkable progress in medicine and in the allied sciences. This progress will unquestionably continue, and the army of observers and investigators now at work in every branch of medical science can safely be trusted with the technical side of a physician's work. But all thoughtful members of the profession admit that there are many practical questions relating to the training, the work and the life of the individual physician, as well as the community in which he lives, that require careful study and consideration, as well as intelligent and conservative regulation. The improvement of the preliminary

training of prospective medical students, of medical schools and of medical courses; higher standards for licensure by state authorities; reciprocity and mutual co-operation between state boards; protection of the ignorant and the sick from the quack, the faker and the charlatan; improvement of the social and financial conditions of the physician; stimulation of the desire to improve his own condition and to increase his knowledge and usefulness—all these much-needed lines of agitation and reform are blocked in the beginning by a lack of knowledge regarding the individual members of the medical profession.

As already stated, detailed information in all technical lines has increased a hundred-fold in the last half century. Along practical and sociologic lines, there is little more known than there was fifty years ago. No one knows how many individuals are at present engaged in the practice of medicine in the United States. Estimates vary from 110,000 to 140,000. Of this indefinite number, no one knows how many are properly licensed by the licensing body of the State in which they live. In many states, owing to the condition of the records, the State board itself can not tell whether a certain individual has a right to practice medicine or not. Information obtained by one State board at considerable expense and trouble is not utilized by others. Knowledge possessed by one society is not shared with others. Statements regarding college and year of graduation, as well as regarding state licensure, are in many cases most difficult of verification. If one desires data regarding a physician, there is no central bureau that can furnish it to him, no general clearing-house for information. Licensing bodies are continually met by the fact that they are unable to obtain reliable information whereby they may verify statements made by an applicant. There is not in existence to-day a list of the physicians of the United States whose legal qualifications to practice medicine have been verified. Out of the fifty-four state and territorial licensing bodies, only twenty-one have ever published a list of physicians legally qualified to practice medicine within their jurisdiction.

Information regarding members of the profession is difficult to obtain when desired for identifying, locating or tracing an individual physician for personal notices, biographical sketches, obituary notices, and all other purposes for which such information is desired. What has long been needed is an accurate compilation of data, made up of information obtained from official sources, such information then to be carefully edited and classified and kept corrected up to date, for the use and information of licensing bodies, and for any re-

sponsible person desiring information for legitimate purposes.

While the necessity for such classified information has been long recognized, until recently, conditions have not been favorable for its establishment and maintenance. Now with organization more or less completed, such is possible. In his annual report at the Portland session, the General Secretary of the American Medical Association said:

It has long been recognized that a permanent biographical card index of American physicians, giving data in regard to preliminary education, medical education, previous locations, etc., would be of great value to the Association and to the profession. Such an index would be of value in tracing a physician through various localities, making up matter for directories and in compiling statistics in regard to the profession. This work has been begun and is now being carried on along two different lines, namely, first, the accumulation and indexing of biographical data in regard to the members of the profession now engaged in active practice; second, the accumulation of similar data in regard to graduates of the coming year and of recent licentiates of state boards of health. This has been carried on through the assistance and co-operation of medical colleges and secretaries of state licensing boards. The amount of information on hand is considerable, and is steadily increasing.

This was approved by the Committee on Reports of officers and adopted by the House of Delegates, with instructions to the General Secretary to continue the work of collecting and classifying biographical information.

In accordance with this action, a biographical card index of the medical profession has been established, and it is hoped that very soon this index will contain a card for every physician in the United States. On the card will be recorded name, place and date of birth, preliminary education, medical college and year of graduation, state license and date, medical societies, college and life insurance positions, school of practice, and specialty, if any. In connection with this fundamental information, provisions are made for recording removals, positions held and other matters that may occur in the life of the individual that are of sufficient medical interest to note. Such information is pouring into the general offices of the Association from state and county societies, from licensing bodies, from newspaper clippings, the latter alone averaging over one hundred and fifty a day. Through the co-operation of medical colleges and state boards, certified lists of graduates and licentiates, together with most of the personal information requested, have been obtained, and are now being properly

classified. There is now in possession of the Association a fairly complete list of graduates of American medical colleges from 1860 to 1901. This list has been supplemented and brought up to date through the co-operation of registrars and secretaries of medical colleges. Copies of the official records of more than three-fourths of the licensing bodies have been secured. The remaining records are now being copied and will soon be completed. Blanks for reports both of colleges and of licensing boards have been prepared.

Each year a supplementary list of recent graduates and licensed physicians will be procured and added to the general index. There will thus be formed a list of all medical graduates, as well as of legally qualified practitioners, made up from official records, and carefully corrected and revised each year. Information lacking regarding individuals will be constantly added. Thus it will be seen that the information asked for is primarily intended for this index. As a reliable and official list of legally qualified practitioners, it will be of great value and will undoubtedly aid in securing general reciprocity among licensing bodies.

The second reason for desiring this information is for use in compiling a reliable and accurate directory. The directory however, is only incidental to the other work. From the index will be drawn information, either personal or official, for compiling, revising and correcting the directory, both the one now in preparation, as well as subsequent editions.

The American Medical Directory will differ from other directories heretofore issued in three particulars: First, it will be a directory of the American Medical profession published and owned by physicians themselves. Second, information regarding college and year of graduation and date of licensure will be verified from official sources. Third, it will furnish the same information regarding each physician, whether he be a subscriber to the directory or not. No paid-for information will be included. It will also combine in one volume the purpose of a general medical directory, as well as a medical society blue book, since the names of all members in good standing of the constituent state associations and their component branches will appear in capital letters, as a distinctive mark of such membership. Information contained in the directory regarding each physician will include name in full, year of birth, college and year of graduation, office address and office hours.

The assistance and co-operation of all physicians, and especially all members of the organized profession, is earnestly requested in carrying on and developing this work. The greatest service that any physician can render at the

present time is to furnish, promptly and accurately, information regarding himself. For the purpose of obtaining this information a blank has appeared in successive numbers of The Journal for the last six weeks. About 20,000 of these have been filled out and sent in.

A number of physicians have written saying: "You will find full information regarding me in the ——— Directory." As practically all directories are copyrighted works, it will be readily seen that such information is not available for the purposes desired. Other physicians have replied, saying, "You will find my complete record in the Transactions of the ——— Medical Society for the year———."

A moment's reflection will show the difficulty in tracing up the personal record in this way. The time required for a physician to fill out and return these blanks is infinitesimal; the time required for the directory office force to trace each individual is great. If each reader of The Journal will furnish at once, without further solicitation, the personal information regarding himself, the work of accumulating the data will be greatly simplified. On advertising page 32 of this issue will be found the information blank desired. All readers of The Journal who have not already done so, are urged to furnish this information at once.—Journal A. M. A.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The Clark County Medical Society held its regular monthly meeting at the office of Dr. Lyon on Saturday, the 13th inst. Those present were Drs. M. S. Browne, I. H. Browne, Shirley, Willis, Cole, Goodwin, Stephenson, Venable, Combs, Clark, McKinley, Allen, Bush, Hart, Price and Lyon, of Clark County, and Drs. Ussery and Anderson, of Bourbon County.

The following officers were elected for the ensuing year:

President, Richard Allen; Vice-President, I. H. Browne; Secretary-Treasurer, Howard Lyon.

Dr. Ussery, of Paris, read a most interesting paper on "How We Do It In Bourbon."

Drs. Goodwin, Bush and Lyon were appointed essayists for the next meeting.

After the transaction of business the members and visitors adjourned to the St. George Hotel, where an elegant dinner was served, following which the disciples of Hippocrates

went their various ways, each vowing that he had had a most delightful time.

HOWARD LYON, Sec'y.

* * * *

Dec. 19, 1906.

The Daviess County Medical Society met in regular quarterly session at the City Hall in Owensboro to-day. The President, Dr. J. D. Russell was sick, and the meeting was presided over by the Vice-President, Dr. J. A. Stewart. Thirty-seven physicians were present.

The Secretary-Treasurer reported a balance of \$341.58 in the treasury.

Dr. F. A. Stanley, of Hartford, and Dr. A. Gorden, of Masonville, were admitted to membership.

The annual election of officers resulted as follows: President, Dr. C. H. Todd, of Owensboro; Vice-President, Dr. S. P. Oldham, of Sorgho; Secretary-Treasurer, Dr. J. J. Rodman; Censor, Dr. E. B. McCormack; Delegate, Dr. J. W. Ellis, of Madisonville

The newly elected President appointed as a committee on health and legislation, Dr. J. A. Nelson (chairman), Dr. M. A. McDonald and Dr. Ed Barr.

A communication from the Kenton-Campbell County Medical Society, embodying resolutions asking the legislature to pass a law safeguarding our professional secrets, was read and acted on favorably.

Dr. D. M. Griffith made a report as delegate, and supplemented it by a talk on medical organization, which was favorably received, and a rising vote of thanks was given to the Doctor.

Dr. C. H. Todd made a short talk on Medical Societies.

Dr. J. W. Ellis reported an interesting case of epilepsy.

Dinner was set by the city physicians for the Society at the Rudd House.

Dr. L. G. Armendt reported a case of spontaneous version which was generally discussed.

Dr. J. L. Early reported a case of convulsions coming on before labor.

Dr. C. H. Todd made the following remarks:

Mr. President and Members of the Daviess County Medical Society—

After forty-five years of medical work and forty of these spent in Daviess County with the boys in the trenches, I wish to express to you the very great pleasure it gives me to speak on this occasion of "The Medical Society."

The local medical society is not only essential to the medical profession, but also to the welfare of the community, for while the young doctor is benefited by the experience of the

older members, the old physician keeps abreast with the advance in medicine.

The medical society harmonizes the profession and brings about a fraternal feeling, and the discussion elicited is often more valuable than the paper itself, however brilliant it may be.

I see before me physicians who are the most influential men in their community, and this is due to the fact that for thirty-five, thirty, twenty-five, and twenty years they have been loyal to their local medical society, and consequently ethical at all times.

The "free lance," like the poor, we will have with us always, even unto the end, and it is a mistake to attempt to discipline him, for he only cries persecution, upon which he seems to thrive, but simply let him alone for he will undoubtedly pass away unhonored.

This community is to be congratulated upon the magnificent organization of the Daviess County Medical Society, for of the seventy-three active, regular, white physicians registered in Daviess County, sixty-two of that number are members of the County Medical Society, and this record is not even approached by any one of her one hundred and eighteen sister counties; and when the Kentucky State Medical Association meets with us next year, down the line will resound the huzzah: "Look! There stands old Daviess County like a stone wall."

The next meeting will be at the same place on March 20th, 1906.

J. J. RODMAN, Sec'y.

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Dec. 7th, 1905.

The *Scott County Medical Society* was called to order by the President, Dr. T. H. Daugherty, at 1:30 P. M.

The members present were, besides the President, Drs. John A. Lewis, D. B. Knox, R. L. Carrick, W. D. Scott, A. B. Coons and John E. Pack.

The minutes of previous meeting were read and approved. Dr. John A. Lewis read a most valuable paper on "Fractures of the Skull." Discussion participated in by Drs. Knox and Coons.

Dr. Coons reported a case of rupture of intestine, near or at the sigmoid flexure, during labor. The patient is now reported to be on the road to recovery.

A communication was read from the Kenton-Campbell County Society referring to safeguarding the professional confidences of physicians from legal violations in this State. Drs. Pack and Coffman were appointed a committee to confer with our representatives in the State Legislature in regard to the matter.

The election of officers resulted as follows: D. B. Knox, President; W. D. Scott, Vice-President; John E. Pack, Secretary; Wm. H. Coffman, Referee; R. L. Carrick, Censor; Jno. A. Lewis, Delegate; John E. Pack, Alternate.

Dr. T. H. Daugherty, the retiring president, at the close of the meeting made a very graceful little speech, thanking the Society for having honored him, expressing regret that on account of ill health he had not been able to attend the meetings and do the work he had hoped for, and urged all members to be punctual and regular in their attendance at future meetings.

At the next meeting, first Thursday in March, Dr. Coons will read a paper on pneumonia, and Dr. Allpin a paper on placenta praevia.

JOHN E. PACK, Sec.-Treas.

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The regular meeting of the *Warren County Medical Society* was called to order by the Vice-President, Dr. D. B. Campbell. The minutes of the last meeting were read and approved. The following members were present:

Drs. Beazley, Freeman, MacCraken, Hall, Huddle, Campbell, Souther, J. N. McCormack, Lillian South, Cherry, Thomas, Carson, Blackburn, Briggs, Stone, Strother, F. D. Cartwright, and A. T. McCormack. Dr. T. O. Helm, of the Logan County Society, was a welcome guest, as was Dr. N. R. Fitch, of the local profession.

Upon motion Dr. Lillian South, who had been away from home for the past year taking post graduate work, was reinstated.

Dr. Blackburn presented the case of Mrs. S——, aged fifty-one, whose illness began with right facial neuralgia four months ago. Swelling was first noticed in alveolar ridge under her plate. This was punctured, and from that time the tumor increased rapidly. Right nasal passage was occluded six weeks ago; in three weeks has increased thirty per cent. in size. Fluctuation all over the tumor. On incision only blood and serum escaped. He introduced his finger and the contents felt like a blood clot. Diagnosed as melano-sarcoma. Has used the X-Ray, seven treatments without result.

Dr. W. W. MacCraken read a paper on "Recognition of the Manifestations of Syphilis." (This paper will appear elsewhere in the Journal.) He added to the paper that he had examined the blood of syphilitics microscopically, but had been unable to discover anything.

Dr. Carson, opening the discussion, said the history given by these cases is frequently erroneous. He emphasized the difficulty in keeping these patients under treatment, suggesting

as a remedy that a contract be made and an advance sum be paid cash. He reported several cases that had begun and then neglected treatment, and afterward presented symptoms of tertiary syphilis. One or more small chronic patches on the face covered with little white scales he considered almost pathognomic. One of the most common manifestations is ulceration and perforation of the nasal septum. In the throat it usually attacks the tonsils. It is frequently necessary to assume the diagnosis and treat actively in order to confirm it. In the eye we have most frequently iritis and retinitis. In the hereditary form he emphasized the periodicity of the recrudescences. Syphilitic keratitis generally comes on from the eighth to the twelfth year, the second attack from the sixteenth to the twentieth year. It is especially important to recognize syphilitic iritis early and use atropine heroically to prevent adhesions. The result of operation in neglected cases is very bad, and where there is much inflammatory trouble about the eye and any iritis, it is safe to use enough atropine to produce results.

Dr. Rogers said that treatment should never begin until the diagnosis is made and confirmed. He spoke of the difficulty in differentiating between iodization and syphilitic eruptions. After the initial sore, watch for glandular enlargement and then skin involvement. When you and your patient are both firmly convinced that he has the trouble, then begin treating, and not before.

Dr. T. O. Helm sees more of these cases in innocent women than in men in practice in a small town where numbers of the men have business away from the town.

Dr. Blackburn reported two cases of chancre of the lip, the secondary symptoms appearing no more rapidly than in the ordinary form.

Dr. Huddle begins the treatment as soon as he can make a diagnosis. He says he can make a diagnosis from the initial sore. He puts on rubber gloves and feels it, if it is hard it is a chancre, and he begins active treatment at once without waiting for a rash or anything else. In cases where he has seen the rash he has had difficulty in treating the cases. Dr. Hall wished he could make a diagnosis from the initial sore, but felt that he could not. He had seen many bad cases at the County Poorhouse, where diagnosis had never been made. He believed a trip to Hot Springs harmful, as it lulled the patient into a sense of false security.

Dr. A. T. McCormack spoke of the importance and difficulty of keeping the patients under treatment for a long time. He, too, wished he could make a diagnosis from the initial

sore. He had studied syphilography under Prof. Taylor, of New York, who, with Bumstead had first efficiently treated this disease, and had heard him say so often, after forty years' special experience with it, that he nor any other man could possibly make a diagnosis until the primary rash appeared, that he had always felt convinced that it could not be done.

Dr. MacCraken, in closing, reported six cases last fall with chancre "like the picture books," that had Unnas red bumps, and some stomatitis. In these cases he made a diagnosis of syphilis; three had it and three did not.

Dr. W. A. Briggs read a splendid paper on "Conservative Midwifery." He spoke of the frequency of laceration of the cervix and perineum, and said these were probably accounted for by the low fees here. In his paper he very ingeniously described the treatment of a case of labor in Bowling Green and then of a case as it should be treated. He recommended the use of intrauterine douches and said he had never seen a laceration in his cases.

Dr. T. W. Stone regretted that he was unable to entirely avoid lacerations, but that he always repaired them at once. He does not use the intrauterine douche unless especially indicated. Dr. Lillian South spoke of the importance of repeated examinations, and proper care before labor. She believed a complete tear was due to negligence, but that a slight one occurred in most cases. She usually puts in the stitches before the placenta is delivered, but does not tie them up. She only uses the intrauterine douche when post partum hemorrhage is threatened and then uses simply hot water. She thinks it is better to conduct the last part of the labor on a kitchen table or some other convenient place. She carries a small sterilizer with her and repairs every slight laceration at once. These generally heal in five days, and then the stitches can be removed.

Dr. J. N. McCormack complimented Dr. Briggs for his eminently practical paper. He did not believe the fees should be raised, as the average doctor gets all he is worth in these cases. He thought we should study more and then we would be worth more to our patients.

Dr. Briggs in closing said that he had used the intrauterine douche in every case he had had, and that it usually did away with the after pains, and that he had never had a case of sepsis.

Dr. Blackburn offered a program for the post graduate course, first quarter, and it was determined to meet every Tuesday night at 8 o'clock. An appropriation was made to furnish the club room. Dr. McCormack said that

he would furnish a room, heated and lighted, for the first year of the club. He urged all the members to be present and work hard on the post graduate course, not only for their own benefit, but for that of their people.

Dr. Carson said that the post graduate course appealed to him more than any other thing that had ever been done by the society, that every doctor who attended would be an up-to-date one, and this was important to them and their patients.

Upon motion the society adjourned to meet next Tuesday night at 8 o'clock for the first lessons of the post graduate course.

All but a few members of our society have paid their annual dues for 1906.

A. T. McCORMACK, Sec'y.

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The Kentucky Midland Medical Society held its fourth quarterly meeting at Midway on January 11th. There was a good attendance, a good dinner and good discussions of several interesting subjects.

The next meeting will be held at Paris in April. Dr. W. B. McClure, of Lexington, was elected President, and Dr. P. H. Arnold, of Versailles, Secretary.

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The Ballard County Medical Society met at La Center on December 12th, 1905, with the President, Dr. J. D. Rollings, in the chair. Minutes of previous meetings were read and adopted.

Dr. N. W. Hilton reported a case of chloroform poisoning, Dr. J. S. Davis a case of dropsy, and Dr. J. D. Rollings a case of abortion, all of which were generally discussed.

The most important item of business was the election of officers for the ensuing year, which resulted as follows:

President, J. L. Hale; Vice-President, E. B. Shelton; Secretary-Treasurer, W. A. Page.

Dr. W. F. Stevens was elected a member of the Board of Censors for one year, the other members being Drs. W. A. Page and J. D. Rollings.

Dr. H. R. Melton was duly elected to membership, and the application of Dr. J. J. Morrell was received and filed with the Secretary.

The President appointed a Committee on Arrangements consisting of J. S. Davis, J. C. Boone, and W. F. Stevens. This committee reported time and place of meetings for 1906 as follows:

March 13th, Wickliffe; June 12th, Love-laceville; September 11th, Barlow; December 11th, La Center.

The Committee on Program, Drs. J. L. Hale, W. A. Page, and E. B. Shelton, appointed essayists for the next regular meeting as follows:

J. S. Davis, "Pneumonia;" S. M. Dorris, "Auto-intoxication;" W. F. Stevens, "Phlebitis;" J. J. Morrell, "Meningitis;" H. R. Melton, "Gun-shot Wounds."

W. A. PAGE, Sec'y.

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The Knox County Medical Society held its regular monthly meeting December 25th, 1905, and the following officers were elected for the ensuing year:

President, J. L. Locke, Barbourville; Vice-President, J. W. Parker, Grays; Secretary-Treasurer, Charles L. Heath, Lindsay; Delegate to State Association, G. H. Albright, Barbourville.

Our regular monthly meetings are held the fourth Monday in each month.

G. H. ALBRIGHT.

TWO MORE CASES ILLUSTRATIVE OF STOMACH SURGERY.

By AUGUST SCHACHNER, M. D., Louisville, Ky.

[The following case reports should have been appended to Dr. Schachner's article which appeared in the January issue of the Journal. His title there announces "six consecutive cases," while the text contains only four cases. The two last case reports were added after the original paper was set up, and were crowded out by other matter. We are glad to correct the matter by adding the two case reports here.—Editor.]

Case No. 6—

Miss S———. Age 31 years. Unmarried. Nativity American. Father died at the age of 63 years from some complication of lungs. Mother died aged 66 of dropsy, also afflicted with a hernia. There were ten children. The patient was a twin and of premature birth. Five of the children have since died. During childhood had measles. Had always been delicate, and was underweight at time of birth. The other twin died in infancy. This trouble had its beginning about twelve years ago. There was at first an inability to digest nitrogenous food. She lived mainly upon fruits and vegetable diet. There was no regurgitation, but vomiting was a constant and an increasing symptom. She had been treated by lavage without results. In January last, she discharged blood and what she believed to be pus from the bowel. This was repeated in June. At each time she felt feverish for several days; the last meal she has eaten was two weeks before Christmas (almost a year past). It consisted of several table spoonfuls of potatoes and vegetables with a couple of slices of bread. Since then she has lived upon a slice or two of very thin toast with a small amount of panopepton. The latter foods did not agree

with her, but were forced upon her to prevent starvation.

During a week prior to the operation she fainted several times. A jejunostomy after Witzel's method was performed. In spite of the fact that she had been stimulated hyperdermatically and by rectum and the operation performed with the greatest dispatch, she was barely able to go through the ordeal. For the first week she did very well, increasing rapidly in strength and pulse improving. Then the intestinal juice began to escape with each peristaltic wave. The skin about the wound, and for four to six inches became absolutely raw. The sufferings were intense and all the ground gained was again lost. This condition persisted for about ten days when the fistula closed. The rest which the stomach had received had so improved that organ that she was now able to take solid food and a second improvement occurred.

A posterior gastro-enterostomy, together with the liberation of the jejunum from its attachment at the cite of the former operation was successfully accomplished. For the first five hours following the operation there was some retching and vomiting of stringy mucous stained with altered blood. Stomach washing was employed once, which effectively settled the stomach. She has been taking carefully increasing amounts of liquid nourishment.

Although the jejunostomy succeeded as a life-saving measure, which enabled the patient to gain sufficient ground to be able to successfully stand a gastro-enterostomy, it is a measure that I would hardly repeat, owing to the discomforts that attended the escape of the intestinal juice externally. In its stead I would consider the advisability of utilizing the appendix as suggested by Weir, as this would eliminate the objectionable features of the intestinal juice.

KENTUCKY NOTES.

Dr. W. R. Blue, of Louisville, died at Rome, Ga., on January 1st, 1906.

Two years ago a facial paralysis occurred, followed later by partial impairment of function of both lower extremities. Despite heroic and unceasing efforts, the disease pursued its relentless course.

Dr. Blue is another victim of the dread enemies that lie always in wait for the physician. It is a matter of great regret to the profession of Louisville and Kentucky that so lovable, loyal and devoted a life had to be laid down a sacrifice on the altar of duty and science.

Appended are memorial resolutions adopted by two societies in Louisville, of which he was an honored member.

Death is but the cessation of physiological function. It is met so often that it is the expected; yet, when it occurs in our family or circle of friends, we realize keenly its import—the severance of earthly ties, so severe for the loved ones, and the attainment of that reward which his or her life has merited.

In the untimely death of Dr. W. R. Blue, at the age of forty, in the full fruition of scientific endeavor and research, not only this profession, but the community at large has suffered a distinct loss. We sorrow with his family. We miss his warm friendship, we mourn the loss of a faithful member of this society, we regret the interruption of research work of which his career gave much promise and which should be a stimulus to the younger members of the profession in the prosecution of scientific advancement.

Resolved, That these resolutions be spread on the minutes of this society, and a copy be sent to the family of the deceased.

JOHN J. MOREN,
CHARLES G. LUCAS,
IRWIN ABELL,

Com. Louisville Academy of Medicine.

For many years Dr. William R. Blue had been an active member of the Louisville Surgical Society; we had learned to cherish him as a man and to honor him for his professional attainments.

In the glory of his career an untimely death has carried him off. The Louisville Surgical Society keenly feels its loss and extends to his family its heartfelt sympathy in their bereavement.

In behalf of the Surgical Society,

(Signed)
I. N. BLOOM,
HENRY KOEHLER,
AP. MORGAN VANCE.

Louisville, Ky., January 15th, 1906.

* * * *

President Aud has appointed the following standing committees:

On Scientific Work:—D. W. Gaddie, Chairman, Hodgenville, Ky.; Louis Frank, Louisville; James B. Bullitt, Louisville, ex-officio.

On Public Policy and Legislation:—George P. Sprague, Chairman, Lexington; Ben L. Bruner, Hardyville; W. W. Richmond, Clinton.

* * * *

Dr. Thomas C. Evans and Dr. Adolph O. Pfingst have jointly opened new offices in the Gaston Building, 654 Fourth Avenue, in Louisville. They will continue together the practice of their special branch.

MICROSCOPIC DRAWINGS: — Any one desiring to have beautiful drawings made from microscopic preparations, can get this work done by Miss Eva S. Carrington, 1239 Second street, Louisville. The editor of the Kentucky Medical Journal will be glad to furnish further information.

ALCOHOL IN "PATENT MEDICINES."

The following percentages of alcohol in the "patent medicines" named are given by the Massachusetts State Board Analyst in the published document No. 34:

Lydia Pinkham's Vegetable Compound	20.5
Paine's Celery Compound	21.
Dr. Williams's Vegetable Jaundice Bitters	18.5
Whiskol, "a non-intoxicating stimulant"	28.2
Colden's Liquid Beef Tonic, "recommended for treatment of alcoholic habit,"	26.5
Ayer's Sarsaparilla	26.2
Thayer's Compound Extract of Sarsaparilla	21.5
Hood's Sarsaparilla	18.8
Allen's Sarsaparilla	13.5
Dana's Sarsaparilla	13.5
Brown's Sarsaparilla	13.5
Peruna	28.5
Vinol, Wine of Cod-Liver Oil	18.8
Dr. Peters's Kuriko	14
Carter's Physical Extract	22
Hocker's Wigwam Tonic	20.7
Hoofland's German Tonic	29.3
Howe's Arabian Tonic, "not a rum drink"	13.2
Jackson's Golden Seal Tonic	19.6
Mensman's Peptonized Beef Tonic	16.5
Parker's Tonic, "purely vegetable"	41.6
Schneck's Seaweed Tonic "entirely harmless"	19.5
Baxter's Mandrake Bitters	16.5
Boker's Stomach Bitters	42.6
Burdock Blood Bitters	25.2
Greene's Nervura	17.2
Hartshorn's Bitters	22.2
Hoofland's German Bitters, "entirely vegetable"	25.6
Hop Bitters	12
Hostetter's Stomach Bitters	44.3
Kaufman's Sulphur Bitters, "contains no alcohol" (as a matter of fact it contains 20.5 per cent. of alcohol, and no sulphur).	20.5
Puritana	22
Richardson's Concentrated Sherry Wine Bitters	47.5
Warner's Safe Tonic Bitters	35.7
Warren's Bilious Bitters	21.5
Faith Whitcomb's Nerve Bitters	20.3

In connection with this list, think of beer, which contains only from two to five per cent. of alcohol, while some of these "bitters" contain ten times as much, making them stronger than whiskey, far stronger than sherry or port, with claret and champagne far behind.—California State Medical Journal

ASSOCIATION OF STATE MEDICAL JOURNALS.

CIRCULAR NO. I.

The Proprietary Association of America, having a very strong organization, has established a Press Bureau and and is now fighting the American Medical Association and the medical profession. Collier's Weekly for November says that every newspaper in the country is muzzled by this Proprietary Association.

Undoubtedly the nostrum interests which will be hurt by the investigation of the Council of Pharmacy and Chemistry of the A. M. A., will align themselves with the "Proprietary Association," and will endeavor to hurt the medical profession and particularly the American Medical Association, if they possibly can. It therefore seems to me that it is imperative that we, representing State medical organization, should make known the principal facts disclosed by Collier's Weekly. All of our members will not see Collier's; the newspapers will either be silent or attack us and our Association; our members, or certainly most of them, will not be aware of the actual facts unless the information is disseminated through our journals.

The fight promises to be an exceedingly bitter one, and it seems to me that we will fail in our duty if we do not actively support the A. M. A. and its Council on Pharmacy and Chemistry, and Collier's Weekly, and do not place before our members the essential facts. Sympathy will not win this fight, but publicity may. Respectfully,

PHILLIP MILLS JONES,
Pres. A. S. M. J.

PROPRIETARY ASSOCIATION OF AMERICA.

This is the organization of philanthropists and public benefactors, many of whom are good enough and have sufficient of the milk of human kindness in their hearts to furnish alcohol, cocaine, morphine, etc., to man, woman or child who can be persuaded into self-dosing by lying advertisements. It held a meeting on December 4, 1905, and we are informed that some sixty members attended. Doubtless "Peruna," "Hostetter's Bitters," and others of the alcoholics were cheek by jowl with the deadly "soothing syrups" and "catarrh cures." It must have been a merry gathering, so near to the gladsome Christmas time, and doubtless the sixty odd philanthropists thought often of the homes they have—shall we say absorbed?—and the lives they have ruined in the regular course of their honest and ennobling occupations.

They passed some resolutions. The resolu-

tions are absolutely astounding. Scarcely has this country seen an exhibition of greater or more coldly calculating sarcasm. Imagine these sellers of alcoholics and morphine or cocaine nostrums objecting to doing the very things that support them! Imagine them trying to secure honest laws to honestly control the sale of cocain! But there is no use in trying to discuss the matter longer; words are insufficient. Just read the resolutions. If it were not to weep, it would be to laugh.

Resolved, That this association thoroughly disapproves of any effort on the part of any person or firms, members of this association or not, to market as medicines any articles which are intended to be used as alcoholic beverages or in which the medication is insufficient to bring the preparation properly within the category of legitimate medicines.

Resolved, That the Legislative Committee be and is hereby instructed to earnestly advocate legislation which shall prevent the use of alcohol in proprietary medicines for internal use in excess of the amount necessary as a solvent and preservative.

Resolved, That the Legislative Committee be also instructed to continue its efforts in behalf of legislation for the strictest regulation of the sale of cocain and other narcotics and poisons or medicinal preparations containing the same.

Resolved, That this association urges upon its members the most careful scrutiny of the character of their advertising and of claims for the efficacy of their various prescriptions, avoiding all other statements.

CONGRATULATIONS TO MISSOURI.

From the October number of the Journal Missouri State Medical Association we take the following extract, and beg to congratulate the Council upon its decision and wish it strength to carry it out. That its advertising pages have been adorned with some things that should not be there, is beyond doubt; that they will shortly disappear, now seems probable.

"At a recent meeting of the Executive Committee of the Judicial Council, the members were disposed to criticise harshly some advertisements of proprietary remedies carried by the Journal, and decided to discontinue all those where the formula was not known or where claims not founded on fact were made. The correctness of the decision of the committee is beyond question. While it may be considered within the province of a medical journal to bring to the attention of its readers, through its advertising columns, such preparations as are meritorious, no article should be advertised unless the chemical formula be

given, or in the case of a pharmaceutical compound, unless the name and proportion of each active ingredient appear. That many advertisements may be lost is quite probable, but the time has arrived when a firm stand should be taken, not only by the Journal of the American Medical Association and State journals, but by all reputable medical journals."

We heartily commend this to the careful attention of the officers of the State medical organizations of Michigan, New York, Illinois, Nebraska, Maryland, Wisconsin, Oklahoma, and Kansas.—California State Journal, of Wednesday, Dec. 1, 1905.

SECRET REMEDIES.

Practically the entire controversy really rages about the remedy of unknown composition, and all attempts to prove inconsistency cannot disprove the propositions that the man who prescribes a remedy of composition unknown to him endangers his patient by subjecting him to (1) the possible administration of some component drug perilous to him in his present condition, and one which the physician would not administer, if he were aware of it, in that particular case; (2) the administration of some component drug in a quantity that a proper knowledge of the facts would preclude in the case in point; (3) the possibility of a dosing with something to which idiosyncrasy renders him especially susceptible, with the danger that not knowing the cause of the consequent serious symptoms the physician may commit the fatal error of judgment, of pushing the remedy instead of discontinuing it, and finally (4) the possible administration of a drug which, viewed even as a "clinical entity," may not be the same to-day as it was a little while ago. Such cases of materially "amended formulæ" have happened.—*St. Louis Medical Review*.

For the control of nasal hemorrhage tampons can be readily prepared as follows: A layer of cotton is wound around a penholder or similar object until the desired thickness is obtained and then withdrawn. The cotton cylinder is then moistened, squeezed dry and inserted into the nasal cavity. If the projecting end of the tampon is now moistened it will swell up and thus produce sufficient compression.—*International Journal of Surgery*.

KENTUCKY MEDICAL JOURNAL.

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION.

VOL. III.

LOUISVILLE, KY., MARCH, 1906.

NO. 10:

HEMOPHILIA, WITH REPORT OF A CASE.*

By IRVIN ABELL, M. D., Louisville, Ky.

The patient, Arthur Crandell, 18 years of age, was seen with his physician, Dr. Henry Nevitt, of Brandenburg, Ky., on the 29th of August last. Two weeks previous while playing with schoolmates he fell, striking his right arm between shoulder and elbow. This caused considerable pain and upon examination by Dr. Nevitt no fracture or injury other than contusion was found; the arm was bandaged and patient was instructed to carry it in a sling in order to secure rest. After two or three days patient began to suffer severely and arm began to swell; this swelling and pain continued, until the arm was as large as the thigh, and pain became so severe that morphia, in one and one-half grain doses hypodermatically, would relieve only for a few hours. At the time I saw him pain and tenderness were so marked that examination could be made only under anaesthesia; the arm was enormously swollen from the fingers to the axilla, the swelling stopping abruptly at this point; the enlargement in the arm was firm, no pitting on pressure, no discoloration except that resulting from the application of iodine and similar remedies; the enlargement in the forearm was softer and seemed to result from the obstruction above; the elbow joint was distended with serum, determined by aspirating with a hypodermic needle; no enlargement of axillary glands, no increase in temperature, pulse from 80 to 90; the point of greatest pain was in arm and elbow. Suspecting from the family history that this was a case of subfascial hemorrhage, he was treated accordingly; the arm was enveloped in cotton batting, held firmly in place by a snugly applied roller bandage, and kept elevated at an angle of 45 degrees on pillows. At the end of ten days the swelling had subsided at all points except the surface of arm corresponding to the belly of the triceps muscle, at which point fluctuation was present; there was no ecchymosis or discoloration to indicate the nature of the fluid within. An aspirator demonstrated it to be thick, partially clotted blood, too thick to be withdrawn with a needle; consequently a

small incision was made under cocaine and the blood and clots forced out by pressure. A gauze pad and firmly applied bandage constituted the further local treatment until wound was healed, during which time patient was given ten drops of adrenalin chloride solution, 1 to 1,000. After healing was complete, gentle massage was practiced. At the present time the arm has about regained its normal size, there being some little fullness at site of hemorrhage; the elbow joint has regained its mobility, though free use of the arm still causes some discomfort at site of hemorrhage.

This patient had shown a tendency to profuse bleeding since childhood; at one time a slight cut on inner surface of lip produced alarming hemorrhage; at another it followed the extraction of a tooth, and was controlled only by inserting a cone into the tooth socket and bandaging the jaws together; it was necessary to maintain this position for three days before the bleeding checked. Persistent nose-bleed has been of frequent occurrence. When sixteen years of age an injury to the left thigh produced a condition very similar to the condition of the arm detailed above, the blood in this instance being gradually absorbed. The hemophilic tendency traces back to John Rowe, the great-grand-father of the patient; he bled profusely from the nose and from trivial injuries. An injury to his arm, as far as can be gathered from the history given by his granddaughter, caused extensive inter-muscular and joint hemorrhage, resulting in ankylosis; cerebral hemorrhage was the cause of his death. He had five children, two boys and three girls, none of whom were bleeders; both boys married and raised large families, none of whom have exhibited any marked tendency toward bleeding. All three of the girls married; in the family of one, no bleeders are found; but in the families of the other two the tendency is quite pronounced. Annie Rowe married Marion Duvall and gave birth to six children, three boys and three girls; two of the boys were bleeders, one of them bleeding to death following an operation for hemorrhoids. Lucy E. Rowe married S. E. Cary, and six children, three boys and three girls, resulted from the union; all three of the boys were bleeders, have married and have large families, in none of whom does the bleeder tendency show. Of the girls of this family none were bleeders; but one, Bunnie Cary, married Rev. T. L. Crandell and is the mother

* Read before Kentucky State Medical Association, October 19, 1905.

of the patient, Arthur Crandell, whose case is reported above.

In the three bleeder families tracing their origin to John Rowe, there were born thirteen children, six girls, and seven boys; none of the girls show the tendency, but one is the mother of a bleeder boy; of the seven boys, six were bleeders, three of whom have families, in none of whom are there any evidences of the hemophilic tendency.

The characteristics of the disease evinced by this family are those that have been observed in similar cases since the disease was first brought to the attention of medical men by American physicians of the last century. Heredity is one of its characteristics. J. H. Musser makes the statement that, "Hereditary disposition is so essential that its absence in a supposed case is sufficient to negative the diagnosis."

Information as to the antecedents of John Rowe are lacking, but as far as I have been able to learn, he came of healthy stock, free from hemophilic tendency. The circumstances under which an individual may be, or may become, a bleeder and found a bleeder family are unknown; the acquired tendency to hemorrhage, which we frequently see as a result of disease, neither persists nor is transmitted to descendants; but once given a genuine hemophilia, the hereditary manifestation is one of its most marked characteristics. As a rule the tendency is transmitted through the mother, who, in most instances, is not a bleeder herself; male bleeders, who marry healthy women not of a bleeder family, fail to transmit the tendency. Exceptions to this rule do occur, but with marked rarity. In the family reported the transmission has been in each instance through females, who were themselves not bleeders; of the seven male bleeders, three have married healthy women not of bleeder stock, and though they have large families, no bleeder tendency is shown. None of the children of John Rowe were bleeders, though two of them transmitted the disease. The history of other bleeder families shows that the skipping of a generation is not an infrequent occurrence. In the family reported by von Limbeck, in which the disease had existed for four generations, only the daughters were effected during the earlier period, while in the latter generations the boys alone exhibited the disease. Occasionally the disposition is transmitted to both sexes, most usually to the male alone. In the statistics published by Grandidier, of 657 cases 609 were males and 48, females, a proportion of 12.7 to 1. The tendency to bleed may continue for generations; in the family reported in this paper the transmission has continued through four. The Clitherow

family reported by Legg has shown the tendency for two hundred years; the families of Tenna, Switzerland, have shown it for five generations. The first hemophile observed in this country, of which we have record, was Oliver Appleton, of Reading, Mass., reported by Hay in the *New England Medical Journal* in 1813; the Appleton descendants, known as the Appleton-Swain family, have shown the bleeder disposition through seven generations. The disposition may gradually be lost in a family, Grandidier and Legg each reporting such an instance as having come under their observation.

The disease is most frequent in the Anglo-Germanic nations; of 194 families in Grandidier's table, 154 were of Teutonic stock. Dunn's analysis of 219 families shows 169 to be of Teutonic origin. The disease as a rule begins in early life; in 113 cases Grandidier found that it began during the first year in 63 cases, 17 in the second, and up to the end of the second in 93. It is unusual for the disease to manifest itself for the first time after the first decade of life, but instances have been noted in which the disease has appeared later, notably in the case of Simon, where both father and son had reached the age of twenty-two before the disease began. The manifestations of the disease become less severe with each decade of life, and in some families, as the Mampel family, reported by Lossen, disappears after the fourth or fifth decade. Female members of a bleeder family, even when showing some of the disposition, are not very active bleeders; increase in the menses, both in quantity and frequency, is a case of a female bleeder, with suppression of the catamenia followed by fatal hemorrhage from the gums. Pregnancy and labor do not present the danger that would at first glance be supposed; R. Kolster has collected 130 cases, in which the death of the mother occurred only in three and abortion in only 16 cases.

The one clinical symptom is hemorrhage, persistent and difficult of control. It is either spontaneous or traumatic and may be external, interstitial, subcutaneous, and intra-articular. The location of the spontaneous external hemorrhages in Grandidier's list was as follows: from the nose, 169 times; the mouth, 43; stomach, 15; bowels, 36; urethra, 16; lungs, 17; cerebral hemorrhage, 2; scalp, 4; tongue, 4; finger tips, 4; ear, 5; eyelids, 2; tear papilla, 3; female generative organs, 10; ulcer of the skin, 2; long healed navel, 2. Many cases of fatal bleeding of spontaneous origin have been reported, while numerous cases of fatal hemorrhage following trivial and insignificant injuries have been observed. Fatal bleeding fol-

lowing operation has been noted time and time again, often when the procedure was a minor one; for instance we find in Grandidier's list mention of one death following cutting of the fraenum linguae; following leeching, 5; venesection, 4; blister, 2; extraction of tooth, 12; circumcision, 8; cutting umbilical cord, 4; vaccination, 2; incision for relief of phimosis, 2; there are procedures that we ordinarily perform without fear of inability to control hemorrhage.

Of interest in regard to local origin, is the case of D. Hayes Agnew, quoted by Osler, in which hemorrhage occurred from cuts and bruises above the neck, but never below it. The amount of blood lost varies with the severity of the diathesis and with the location and cause of the injury. In Coates' case a medical student lost half a gallon of blood in twenty-four hours, and in the ten days which the bleeding continued it was estimated that he lost about three gallons. The arthritic symptoms vary from simple swelling of the joint, due to distention with blood, to severely painful swellings accompanied with fever and redness of the periarticular tissues, causing the condition to greatly resemble acute articular rheumatism. Koenig divides the joint troubles into three stages: "first, the stage of hemarthrosis; second, the stage of inflammation; third, the stage of retrogressive changes with deformity. The painless, sudden onset in pale young men marks the first stage. Hemorrhages in the skin would complete the diagnosis. The second stage is strikingly similar to the white swelling of tuberculous arthritis." The author (Koenig) has three times made a mistaken diagnosis, two of the three cases having suffered death in consequence, from hemorrhage after operation; the third recovered. When the joint swelling persists, the end result is more or less limitation of motion, or complete ankylosis.

The etiology, morbid anatomy, and pathogenesis of hemophilia still remain unknown elements; age, sex and heredity are the accepted etiological factors. Various changes have been described as being found in hemophilic individuals, but the lack of uniformity in the findings prevents their acceptance as the characteristic lesions of the disease. The blood is usually normal and shows but little change except following a severe hemorrhage, when it partakes of the nature of the blood of anaemia; recent studies indicate a decreased coagulability of the blood. Blagden found a thinness of the vessel walls; Wilson, that the arteries resembled the veins; Kidd, proliferation of the endothelium of small arteries and veins, with degeneration of the muscle fibres; other observers fail to confirm this finding. Von Buhl

found an increased number of dermal and subdermal capillaries; Birch-Hirschfeld found enlargement of the endothelial cells of the capillaries. Bowlby has demonstrated that the affected points show changes not dependent solely on the effused blood; the cartilaginous covering becomes fibrillated and, at exposed points, eroded; there is a tendency to the formation of echondroses and fibrous bands, resulting in ankylosis. It has been noted that bleeders frequently have prodromal symptoms, from which it is inferred that the volume of blood is subject to change, the prodromes indicating an increased quantity. It has also been suggested that disturbed innervation by interfering with vascular tone may be a pathological factor. Eichorist has suggested that the changes in the blood are of a chemical nature, not to be discovered by our present methods of examination. Lossen takes the same view, observing that in his experience the clot was slowly formed, did not extend wide enough into the tissue, and did not fasten itself in the tissue fibres. He always succeeded in stopping the bleeding with the cautery, but when in locations in which he could not apply a compress, the clot was easily dislodged and led to further bleeding. It is generally accepted that the clotting of blood is due to the formation of fibrin, by the action of the fibrin ferment, thrombin, upon the fibrinogen and globulin. Lossen suggests that in hemophilics, there may be a deficiency of thrombin, or that some substance may be present which interferes with the action of the thrombin. This view is supported by the fact that the substance secreted by the leech prevents the clotting of human blood which the leech withdraws; further, that blood removed from an animal in whose blood pepton has been injected during life, will not clot.

The treatment of hemophilia has been unsatisfactory and many remedies have been advocated, none of which exercises any potent influence over the tendency to bleed. Hemorrhage is to be treated by local measures when possible. Of the remedies used internally, calcium chloride has been of service in some cases; Delace and Fuller have succeeded in arresting the bleeding with thyroid extract. Delace's patient was a woman, very anaemic from loss of blood from gums, with purpuric spots over body; she was given three capsules of thyroid gland daily, with recovery. Fuller's patient was a boy with hemorrhage from the urinary tract; he recovered under five grain doses of thyroid extract daily. Neither writer refers to the subsequent history of patient. C. H. Hare reports the successful use of a 1 per cent. gelatin solution under the breast of a thirteen-year-old girl, bleeding from the gums and

uterus, who had resisted other means of treatment. Hayem recommends the transfusion of entire blood as the best hemostatic. Fluid extract of *hydrastis canadensis* in doses of 10 to 15 drops has been of service in some cases.

* * * *

DISCUSSION.

Dr. J. V. Prewitt, West Point: I wish to endorse fully all Dr. Abell said. Last Friday I saw a case I had operated on some time previously. In falling, the patient punctured his abdomen about the pyloric orifice. He had no trouble, however, after I had dressed it in the usual way, but later I found that the patient had been bleeding profusely. His physician asked me to come and see him.

The bleeding did not commence until after the first twenty-four hours. The injury had been inflicted Thursday morning. After examining the patient, I prepared to do whatever the emergency might demand. Thinking that possibly the point of the lancet might have entered the cavity, and that I might have caused some intraperitoneal bleeding, I opened up the punctured wound, which led down to the peritoneum. After I first opened up the wound, I could not determine from what source the bleeding was coming, but the blood continued to pour out. The blood seemed to come first from one surface and then from another; but after opening up well down to the peritoneum, I saw that most of the blood came from the muscular tissue.

After cleaning up the field fairly well, I sutured up both borders of the opening. Then I brought the ends together with deep silkworm gut sutures and advised that the patient be given adrenalin solution, about three or four drops before meals. The case has progressed nicely since then; there has not been any more hemorrhage.

I believe in dealing with these cases of hemophilia as you would with a scalp wound when there is profuse capillary bleeding.

* * * *

Dr. Ap Morgan Vance, Louisville: I was very much interested in Dr. Abell's paper. I saw the case he reported. The most valuable lesson to be learned from this paper is that everlasting watchfulness on the part of the surgeon is necessary to keep him from running into trouble. If Dr. Abell had undertaken to do an appendectomy in his case, or if he had attempted to remove a stone from the bladder, the result would have been extremely distressing to him. I have seen

many of these cases, and I have always trusted to the use of the Paquelin cautery, when I could get at the bleeding point. It is the safest remedy.

I meet a class of cases frequently, particularly since artificial foods have been in use so much, that occur in infants and are designated *scrofula*. In these cases accumulation of blood occur in the subcutaneous tissues that resemble hematomas resulting from an injury. I have seen four or five cases in as many years, and the history of the case always showed that this hemorrhage was due to the use of artificial food, and almost invariably these patients have hemorrhages in the course of the long bones. In one case which I saw quite recently, an immense hematoma formed along the upper part of the tibia. It disappeared promptly after giving better food.

Another class that we meet occasionally, in which the surgical proposition is about the same, are intense cases of icterus. I have seen two or three such cases bleed to death in spite of everything, not so much because of the operation having been performed, but from a lack of vital resistance. Those are desperate cases, and they impress on us the necessity of learning all we can about our patients before we proceed to operate on them.

* * * *

Dr. J. S. Chenoweth, Louisville: I have had some cases of hemophilia, and some others that might be classed as cases of exudative erythemas and purpuric conditions. But I have been particularly interested in this subject in connection with appendicitis. In 1904 I reported two cases of hemorrhage into the appendix occurring in the course of an exudative erythema. It is not infrequent that hemorrhage occurs into these organs in such cases as those mentioned by Dr. Abell. We have hemorrhage into other organs, into the skin, intestines and urinary tract, and not infrequently into the appendix where it may be the starting point of serious mischief. I have seen four cases in which the hemorrhage took place into the appendix, and I operated on them successfully.

* * * *

Dr. Abell, closing the discussion: I wish to call your attention to the fact that the condition of which Dr. Chenoweth spoke, and those mentioned by Dr. Vance are not to be considered as genuine cases of hemophilia. The conditions mentioned by them are acquired, whereas hemophilia is an hereditary affection. I would not hesitate to operate in a suitable case of exudative erythema or one of icterus; whereas in a case of hemophilia I would not operate, unless it was absolutely necessary to save the life of the patient in an emergency.

ACUTE INFANTILE SUMMER DIARRHOEA.*

By S. J. HARRIS, M. D., Philpot, Ky.

Few subjects are fraught with more importance to the general practitioner of medicine than are "Acute Infantile Summer Diarrhoeas." Hence the discussion of the subject at our fall session, while the battles we fought with these disorders during the past summer are fresh in our memory, is, to say the least, timely.

The age at which infants are most subject to this affection is stated by most authorities to be under thirty months. Holt gives us the statistics of 3,000 cases treated in family and dispensary practice, classified according to age—thus: of the total number, 14 per cent. under six months, 29 per cent. from 6 to 12 months, 24 per cent. from 12 to 18 months, 17 per cent. from 18 to 24 months, and children over two years 16 per cent. We find according to these statistics that the larger per cent. of infantile diarrhoeas occurs between the ages of six and twelve months, and that the per cent. is diminished as the age increases.

In France, Lesage, places the age of special liability under 18 months, and regards the first three months, and also the period between the 8th and 9th months, when weaning is commenced, as especially dangerous.

In England and Wales in 1894 the deaths of children from diarrhoea under five years old amounted to 9,005—of these 7,360 were infants under one year—1,332 occurred during the second year, while in the third, fourth and fifth years combined were only 113.

The Dublin Medical Journal, from which this report is taken, also reports that in London 72 per cent. of all fatal diarrhoeas occur in the first year of life. The summer diarrhoeas of infants have been variously classified and named by writers, some founding their classification upon changes found in the intestinal canal on postmortem examination, or upon the bacteriological conditions found in the discharges. Others classify according to the source of the infection. If this is found to be outside of the body, it is called ectogenous; if the source is pre-existent in the body it is called endogenous.

The various classifications look well upon paper, and the lines between the groups seem to be sharply defined; but we, as active practitioners, do not always recognize, clinically, the lines drawn between the types of these disorders as they have been set forth by pathologist and bacteriologist. In the milder forms of the disease the symptoms gradually develop.

The infant is restless, cries at intervals with colicky pains, may have slight fever as the disease advances, and is loath to take the bottle or breast. Vomiting is not severe or often and occurs after taking food. The ejected contents have an acid odor, and markedly acid reaction. The stools are at first normal, but afterward become frequent, and contain whitish or greenish curds, are fluid in consistence, and of an offensive order. If the feeding is not discontinued the vomiting is aggravated, the diarrhoea increased, and the fever goes much higher. In these mild cases the prostration is not great, but a mild case may be merged into a more severe type by not withholding food, or by improper treatment. Other cases are developed more abruptly, vomiting frequent, all foods and fluids taken into the stomach are voided, the child cries with colicky pains, which are relieved at intervals by discharges of large quantities of gas with the stools, the diarrhoea is more severe, 15 to 20 discharges in the day. Stools are variable in color, but generally yellow or green with white curds, and as the disease advances they become fluid. The stools may not be offensive, but often contain mucus and blood. In these cases the temperature is much higher in the beginning than in the milder type, and reaches 103 or 104 degrees F. The infant loses rapidly in weight, is pale and languid, with marked prostration, pulse is weak and rapid. The complications are erythematous condition of buttock and thighs, and if the case does not improve in six or eight days, we may have hypostatic congestion of lungs, broncho-pneumonia, stomatitis, and nephritis, one or more as complications. It is not my purpose to speak of cholera infantum in this paper, and yet what is said of the severe form of infantile diarrhoeas will, in some sense, apply to the more severe form of cholera infantum. Let us consider for a short time the causes, prevention, and treatment, of these diseases that depopulate the ranks of our little ones faster, perhaps, than any other known disorders. In seeking for the cause we consider first the infant itself. It is a well-known physiological fact that in young infants the stomach has very feeble digestive or absorbent powers, but is merely a receptacle into which the milk is received for coagulation, and from which it soon passes into the small intestines, where it meets the proteolytic ferment of the pancreas, a feebly alkaline fluid, and a most suitable medium for bacteria to flourish in. Owing then to the feeble antiseptic power of the young infant's gastric juice, which is comparatively deficient in free hydrochloric acid, and the media for bacterial development furnished by the pancreatic fluid,

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we have a condition most suitable for the growth of pathogenic bacteria introduced by means of contaminated food, or present in the intestinal canal. This condition of the infant forms a basal and ever present cause for infantile diarrhoeas. All conditions that lower vitality, defective hygienic surroundings, acute or chronic disease, malnutrition in all its forms, summer heat, especially in the unsanitary state of the cities, and in the overcrowded tenements in such cities. All these environments tend to impair digestion, and thus favor the development of diarrhoeas. But the most prolific causes of summer diarrhoea of infants are over feeding, and the contamination of the milk with which they are fed, for it is well known that the larger number of cases occur among the bottle-fed infants. In Paris Chaterin-Koff found that of 20,000 children dying of gastro-intestinal disease, fully three-fifths were bottle-fed. Holt tells us of 1,943 fatal cases, of which he collected the records, only 3 per cent. were breast-fed. This great difference of mortality between bottle-fed and breast-fed infants is not alone due to the difference in the character of the milk. Cows milk is one of the best known media in which to cultivate bacterial life, and from the cows udder to the baby's bottle the milk passes through so many hands, and is so much exposed, not only to an atmosphere loaded with toxic germs, but to unclean hands, and contaminated vessels as well. Hence by the time the milk reaches the infant's bottle, it is well loaded to do its deadly work. Dr. Edmund Cautly recently found in a specimen of milk examined in London from 3 to 30 millions of microbes to each teaspoonful, and while most of these were harmless, yet many were dangerous. No wonder Dr. Starr in *The American Text Book on Diseases of Children* has characterized the summer diarrhoeas of infants as "Milk Infection." The prognosis depends upon the hygienic conditions and the observance of strict dietetic rules. In the mild or functional diarrhoeas, unless in children of weak constitutions, the prognosis is always favorable. The danger is in neglect, and injudicious dietary, which may prolong the attack, or convert it into one of inflammatory type. In the severe forms the prognosis is not so favorable. The mortality is great, and varies with the surroundings. In the cities, in the crowded tenements, with unhealthy surroundings, and in crowded institutions, a very large per cent. die, but in private practice, with good nursing and proper treatment the mortality is reduced to a minimum. The prevention is in giving attention to all the surroundings of the infants. They should be bathed, in hot weather, every day, and kept clothed comfortably,

according to the weather and condition of the child. Napkins should be changed often, and the nurse's hands thoroughly cleansed after handling the napkins before feeding the child. The bottles and nipples that are needed in feeding should be kept clean, and when not in use, should be kept in a solution of boric acid and washed in a solution of bi-carbonate of soda before using. The milk man should be instructed how to keep the milk clean and to cleanse his hands and also the cow's udder before milking. Cows whose milk is used for feeding infants, should not be fed on sour or decayed food. They should have clean, pure water to drink, should be salted regularly and should not be run or fretted just before milking. The milk should not be taken in a filthy stall, but in a clean place free from dust. The milk before being prepared for the infant's use should set in a vessel of cold water and be occasionally stirred until the animal heat is driven off. Then it should be prepared, modified, pasteurized or sterilized according to the necessities of the child, but should be kept in a cool place until wanted for use. All infants, whether bottle or breast-fed, should be fed at regular intervals. An infant at the breast should never be permitted to nurse a fissured nipple, or a breast in which an abscess exists, or a diseased breast. The nipple of the breast should be washed before and after nursing with a mild antiseptic, such as a solution of boric acid. In the mild or functional forms of infantile diarrhoea, with vomiting and fever, all food should be withdrawn for at least twenty-four hours. A cathartic should be given to thoroughly empty the bowels. Water that has been boiled and cooled on ice may be given in quantities sufficient to allay thirst. After the bowels have been well emptied, the vomiting ceased, and the temperature abated, egg-albumen, barley-water, rice-water, toast-water, or whey may be given in increasing quantities as the child improves. Should the diarrhoea continue after the purgation, the bowels should be washed out with a warm normal saline solution with a little bicarbonate of soda, one teaspoonful to the quart, two or three times a day, and bismuth subnitrate may be given in water every three hours in from two to five grain doses, according to the age of the child. Such drugs as retard fermentation may be given, but in mild cases are seldom required. In the more severe type, however, we do not find our treatment giving relief so readily. The vomiting continues, and the diarrhoea is persistent. In these cases, as in the mild form, all food should be prohibited for 24 to 48 hours. The bowels should be washed out with a weak saline solution, using from a half to one gallon or more at a time. The stomach should

also be washed out and this repeated several times a day, until the vomiting ceases. The bowels should be washed out every three or four hours. After washing the stomach and bowels a purgative should be given to cleanse the smaller bowel. Castor oil is a fine purgative, but does not do so well as calomel in cases where the stomach is much disturbed. Many physicians prefer a saline purgative, but whatever is given, the object in view is to get rid of the poison in the alimentary canal as quickly as possible. After the purgative has cleansed the smaller bowel, if the vomiting and purging continue, the irrigations should be repeated as often as they seem to do good. I sometimes use 20 to 30 grains of tannic acid to a pint of cool water as an injection in the bowel, after flushing with the saline solution. This should be kept in the bowel as long as thirty to forty minutes, if possible; bismuth subnitrate, either alone in 2 to 5 grain doses or combined with 1-2 grain of salol, administered every three hours, in many cases will do good.

Benzothymol with a good elixir of pepsin, in equal portions, and given in one teaspoonful doses every three hours, acts well as an antiseptic and digestant, and is not unpleasant to the taste. Opiates in these cases, if given, should not be given in doses sufficiently large to arrest the peristaltic action of the bowel, or to stupify the child, and should never be combined with other medicines intended to be administered at regular intervals. In all cases, and especially where there is much fever, sponge baths at a temperature of 80 to 85 are indicated. In cases of great prostration a bath at a temperature of 108 or 110 for five or six minutes is beneficial by stimulating the nervous centers. The bath should not be repeated oftener than three or four times a day. Hot fomentations over the abdomen are often of service for the relief of pain. If the temperature continues high, 103 or 104, with symptoms of pain in the head, cold ice cloths to the head often have a good effect in giving relief to the brain and reducing the fever, and allaying the vomiting. Stimulants in the form of whiskey or brandy may be given in cases of great exhaustion in doses suited to the condition and age of the child, but should not be given in sufficient doses or frequently enough to produce a stupid condition.

Strychnia as a heart stimulant may be given in 1-300 to 1-200 grain doses every three or four hours, but this drug should be administered to the young with extreme caution. I once gave a boy eleven years old 1-240 of a grain of sulphate of strychnia and in less than one hour from the time of taking he was affected with the symptoms of strychnine pois-

oning. Since this experience I have been exceedingly careful in administering strychnia to the young. Morphine in 1-100 and atropine in 1-800 grain doses is recommended by Holt in cases of extreme prostration, especially in cases of cholera infantum, but Koplik regards atropine as a dangerous drug to be used in these cases. Care should be taken not to return to a milk diet too early. We should cautiously feel our way back, giving the milk in small quantities properly modified, until the digestive powers are restored. Whatever methods or remedies are employed in the treatment of these cases, we should avoid doing or giving too much; as physicians, sometimes, in our haste to relieve our patients, we do not give nature a chance to respond to our work with our remedies, but burden her with them. We would all do well to remember the three rules given by Dr. Herman Hawkins Jackson in answer to the question, "How shall we feed and treat the baby?" "1st. A food should be given at regular intervals, 2nd. Obtain the best possible hygiene of person and surroundings, 3rd. As little medicine as possible should be given."

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DISCUSSION.

Dr. R. D. Pratt, Shelbyville: The sooner we abolish these old names the better. Instead of saying acute and chronic, we ought to say mild, moderate, and severe. It seems to me that there are fewer cases of summer diarrhoea now than there were years ago. The mothers are beginning to learn that when the baby gets its teeth, it should not be fed on potatoes and bread, and that as soon as it is able to sit up alone it must not occupy a place at the table with the rest of the family and eat what they eat. Of course, an ounce of prevention is worth a pound of cure in these cases. It is the physician's duty to teach his patients that they must be very careful with the diet of the baby.

The treatment of acute infantile diarrhoea necessarily devolves into the dietetic and the medicinal. I must take issue with the essayist when he says that he has very little faith in the medicinal treatment of infantile diarrhoea. I do not believe in a multiplicity of drugs, but I do have a great deal of faith in a few drugs. Calomel and rhubarb serve a most useful purpose in getting rid of the offending material in the bowel. Gastric lavage is also useful. Keep the bowels clean by colon irrigations, once or twice a day, and if there is persistent vomiting, then institute gastric lavage. Of the drugs used to control diarrhoea, bismuth, or some of its preparations, easily stands at the head. Next to bismuth

I would recommend an astringent, such as the sulphocarbolates either the zinc or the sodium salt. I have found them very useful. One thing to remember in this connection is that when you give sulphocarbolates you can test the efficacy of the antiseptic by the co-incident administration of the bismuth salts, giving them in large doses, twenty to forty grains a day. As soon as you get rid of the black color of the stools, showing that hydrogen sulphide has ceased to form, you know that the bowels are in a fairly antiseptic condition and that the sulphocarbolates are accomplishing what you desire. Guaiacol carbonate is another useful remedy in these cases. Theoretically, alphasone and acetosone ought to be as useful in infantile diarrhoea as they are in typhoid.

As to opium, it should never be given in a "gunshot" prescription, but always with a clear idea as to what it is to be used for. In the severe diarrhoeas the treatment instituted by Dr. Larrabee, the hypodermic injection of morphine and atropin, was a most excellent one. But opium should always be given alone, never in combination with any other drug. When given alone you can watch what it is doing.

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Dr. Samuel E. Woody, Louisville: I believe we make a mistake in regarding summer complaint as a dietetic disease. It is not a dietetic disease. It is an infectious disease. Of course, an impure diet will afford the necessary opportunity for the occurrence of the infection, and that, like the poor, is always with us.

We all hear about the dreaded second summer. Why should the second summer be dreaded? Is not the baby's digestion weaker during the first summer than it is during the second? Has it not had twelve months in which to develop its digestive powers? Yes, but in the second summer the baby is crawling all over the floor, wiping up everything with its hands and carrying these to its mouth. Then too, that is the time when the proud father is experimenting with the baby to see what he can get away with in the line of food, such as corn-beef and cabbage. The gastric digestion stands as a guard to the holy of holies. It digests bacteria, and as long as that digestion is good the child is immune. In case of cholera and typhoid, especially the former, a man may go through an epidemic of the disease unscarred and unscared, and drink infected water with impunity as long as he so behaves himself that his digestion remains intact.

So it is with the child; as long as its digestion is good, the child is safe. But once the digestion is impaired, look out for trouble.

The first thing essential in the prophylaxis is to see that these children do not get summer diarrhoea. Look after their digestion. See that

the diet is all right and that they are being fed regularly. If the child does become infected in spite of your endeavors to prevent infection, do not treat the case as the laity expect you to; do not feel that because the diarrhoea is severe you must stop it. Stop the diarrhoea, the vomiting and the cramps and you stop Nature in her efforts to rid the intestinal tract of the offending material. Nature is making desperate efforts to get rid of a bad tenant. It is our duty to assist Nature to get the empty house as speedily as possible.

First of all, empty the stomach promptly. If the vomiting is not sufficient, wash out the stomach. If you have a number 20 catheter at hand and a funnel, wash the stomach out anyway, because you will save the child an unnecessary amount of vomiting and you hasten its recovery. After that we must clean out the intestinal canal. Calomel stands first and foremost as an evacuant. It is easily taken, is retained in spite of the vomiting and is sure to empty the bowels. At the same time you assist the liver in sending into the intestine bile. Use bismuth; it is antizymotic, antifermentative; it relieves the irritation of the intestinal mucous membrane and prevents the complicating catarrh that is so bad and so apt to follow in the wake of these cases of infection. It also acts mechanically by coating the mucous membrane and protecting it from a great deal of irritation. You can give bismuth in any quantity without fear of doing harm.

How about opium? Opium should be used, but it should be used judiciously and carefully. Whenever the vomiting is so severe as to threaten the exhaustion of the patient, or when the diarrhoea becomes distressing, we should control both; not stop them, but control them. When collapse is imminent, when the pulse becomes rapid and frequent and thready, the face pale and sunken, the eyes drop back into their sockets and there is that expression of goneness, then of all the heart stimulants the very best is morphine given hypodermically, combined with either atropine or strychnine, if you wish. Morphine is a great heart stimulant. Try it and note how the heart becomes steadied, how the pulse picks up its quality and rhythm, how the color comes back to the face and the child seems to live again.

Then you must remember that you have a digestion that has been shocked. It is weak and none but the blandest food should be given for some time until the catarrh has passed away and the digestion has regained its former vigor. Milk, which has been shown to be such an excellent culture medium for bacteria, should be avoided for a long time. I have fed such children for months on liquid peptonoids, panopeptone, barley gruel, etc.

Dr. Pratt: What do you think about sterilizing or pasteurizing milk?

Dr. Woody: I used to use it a great deal until I saw cases of rickets follow. Of course it is very convenient to sterilize milk when the mother is going on a journey with the baby, when she can not get good fresh cow's milk. But raw milk is always the best.

I have recently been using acetozone in these cases, and have found it exceedingly valuable after the intestinal tract has been cleaned out thoroughly. It sterilizes the tract perfectly. It seems to hunt out and destroy whatever bacteria are still being harbored in the intestinal tract. Of course, children do not like acetozone-water any more than a grown person does, and parents will give them plain water occasionally. That is wrong; keep them drinking acetozone-water and it alone, and they will soon learn to like it. The child should be flooded with it as if it were plain water. I give it straight without admixture of lemon or orange juice because these may appropriate the nascent oxygen.

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Dr. R. B. Gilbert, Louisville: It is a fact that infantile diarrhoea is due entirely to the bacteria contained in the ingested milk, and by withdrawing milk absolutely, by instituting the necessary hygienic measures and by administering such medicines as are indicated, the condition is controlled quite readily.

As to the use of opium and morphine: it is my opinion that these two agents ought to be absolutely and forever ousted from our medicinal armamentarium. We have in chloral hydrate a substance that answers every purpose and it has not the disagreeable and objectionable features that opium has, or morphine, of stopping all secretions and intestinal peristalsis, and thus combatting just what we desire most to bring about, a clean and active intestinal tract.

CAPILLARY BRONCHITIS IN YOUNG INFANTS.*

By R. B. GILBERT, M. D., Louisville, Ky.

Bronchitis, in one or another form, is perhaps the most common disease in infant and childhood life, and it is not rare in adult life. When the disease involves only the larger bronchi it is rather a trivial affection and requires but little treatment. Capillary bronchitis, that is, inflammation of the mucous membrane of the smaller bronchial tubes, is a severe and dangerous disease at any period of life, but occurring in young infants, it is a most dangerous and often fatal disease.

When we consider the pathology of the disease and the anatomy of the structures involved, the wonder is that any infant under

one year of age recovers. The capillary bronchial tubes, as the name implies, are like a hair in point of size. As the bronchial tubes become smaller and smaller, certain changes take place in their structure: the cartilages consist of thin layers of varied form and size, scattered irregularly along the sides of the tube, being most distinct at the points of the divisions of the tubes.

These cartilages can be traced into tubes the diameter of which is only 1-48 of an inch. Beyond this point the tubes are wholly membranous, and their size diminishes until the size of the capillary bronchial tubes is about 1-200 of an inch in diameter. The mucous membrane lines the bronchi throughout and it has columnar ciliated epithelium.

The foregoing description is that of the bronchi of the adult. How much reduction in size shall we estimate to arrive at a correct idea of the size of the bronchial capillary tubes of an infant at six months of age? A fair estimate, I think, would be to say that the adult capillary bronchi are five times as large as those of the baby—that would give us 1-1,000 of an inch for the infant, about large enough to pass a horse hair through, and this lined with a mucous membrane. Now, when that delicate mucous membrane becomes thickened by inflammation, thus still further reducing the caliber of the tubes, it becomes a narrow passage indeed.

In addition to the now greatly reduced size of the air passages, we must remember that the mucus that is secreted by the membrane when inflamed becomes more viscid and tenacious, thus increasing the difficulty in forcing the air through them. As it is necessary for sustaining life that air must reach the air cells at the distal extremity of the tubes, narrowed down and obstructed as they are, we repeat that the wonder is that any infant survives an attack of capillary bronchitis.

This disease, by reason of the occlusion of many tubes and the retention of the mucopurulent secretion in the air cells, in a few hours develops pneumonia along with the bronchitis, so-called "broncho-pneumonia."

The symptoms of this disease are easily recognized—cough, high temperature, rapid breathing, together with the usual physical signs elicited on auscultation, enable us to make the diagnosis readily.

The leading indication in these cases is to keep the air passages open until the inflammation subsides. If this be not done the supply of oxygen is rapidly cut off and the patient dies. That the smaller bronchi may be kept free, the viscid mucus must be defibrinized and rendered as limpid as possible, to the end that it may be "coughed out." The thickened, in-

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flamed mucous membrane must be reduced, and the toxic materials in the blood incident to the imperfect aeration, and other causes which account for the high fever, must, as far as possible, be corrected.

The remedies in general use are alkaline defibrinizers, potas. bicarb., ammonia, chlorid, together with quinine for fever, and counter irrigation over the walls of the chest. In older children and adults this line of treatment is usually successful. But our cases of capillary bronchitis in the infant under one year of age present many difficulties that are not easily overcome, and the younger the patient the greater the difficulties. One of the greatest difficulties of treatment in the very young is gastric disturbance. Almost any of the medicines mentioned above, after a few doses, cause nausea and vomiting, thus adding to the discomfort and danger already present. We have all had these conditions to deal with in such cases. The picture is a familiar one. We often give up in despair when such conditions present themselves.

The high rate of mortality under the old line of treatment in infantile capillary bronchitis and broncho-pneumonia (I regard the two diseases as practically the same), led me a few months since to try some additional, and so far as I am aware, new plan of treatment in such cases. My results have been decidedly better under the new plan of treatment. A clinical report of one typical case will illustrate:

Infant of Mrs. E. L., age six weeks, born prematurely, weight seven pounds, was suddenly taken sick, the symptoms being rapid respiration, 84 to the minute, pulse 200, temperature 104 degrees F. The cough was almost incessant and the lips were livid. It would nurse but little and that at long intervals. At my first visit I prescribed an aqueous solution of ammonia bromide in one grain doses to be repeated every hour; five doses were given, the last two of which were followed by free vomiting. I tried quinine in 1-2 grain doses; that also caused nausea and vomiting. The temperature in the rectum now registered 105, and the baby began to have twitching of the muscles of the arms and legs foreboding convulsions, which I momentarily expected.

I now abandoned all treatment by the mouth and began saline irrigation of the colon, one heaping teaspoonful of common salt to the pint of warm water, using a soft rubber catheter No. 20. The salt water was thrown well up into the descending colon, using one pint, the fountain syringe being held two feet above the body of the infant, thus insuring gentle water pressure in the delicate intestine. Af-

ter a few minutes the greater part of the water was expelled together with a considerable amount of greenish fecal matter. About two ounces of the salt water was retained. The convulsive symptoms promptly subsided, and one hour after the irrigation the temperature went down to 102 degrees. The infant fell asleep and rested quietly for two hours. On waking, the cough continued and the temperature began to rise. Eight hours after the irrigation the fever was nearly as high as before, 104 1-2, and the same nervous symptoms began to appear. I now repeated the high saline irrigation, with the same happy result as before, the infant taking the breast and retaining the milk. The saline irrigations were given every eight hours. No medicine was given by the mouth. The treatment was persisted in at regular intervals, six or eight hours after each irrigation the fever would rise to 103 degrees or 104 degrees. On the fifth day the range of temperature began to grow less, gradually declining about one degree daily until the tenth day from the beginning, when the temperature remained at 99 degrees. Simultaneously with the decline of temperature the respirations grew less frequent, muco-purulent secretions grew freely discharged from the nose, and from the mouth on coughing. The case went on to perfect recovery. The only additional remedy used was the application three times daily over the walls of the chest of an ointment of menthol, twenty grains to the ounce of vaseline.

The result in this case being so satisfactory and surprisingly successful, I have continued to use the treatment in every case of bronchitis and pneumonia in infants that has come under my care since, and in every instance the result has proven decidedly beneficial.

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DISCUSSION

Dr. B. F. Parish, Midway: I am very glad to have had an opportunity to hear Dr. Gilbert's paper, because I have not found the old remedies I have been using at all satisfactory. I presume that he ascribes his good results to the dilution of the blood with the saline solution and to getting rid of the toxins at the same time. I think that all these children are very much overtreated. I have been in the habit of steaming these children with creasote, and I have had very good results from that method. Put the child in a cradle over which you have draped a sheet; place the generator under the sheet and let the child inhale the vapor, and you will get better results from that treatment than you will from medicines given by mouth.

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Dr. P. F. Barbour, Louisville: I am convinced

that every physician who has to treat these cases is glad to have been made acquainted with Dr. Gilbert's procedure. I do not know of anything that impresses the physician more profoundly than to see a child suffering from a capillary bronchitis. The child is gasping for breath; the finger nails are blue; the face is dusky and wears an agonized expression. That is the time when we must be prepared to do something that will afford instant relief.

Capillary bronchitis should be treated according to the stage of the disease. There are two very distinct stages. The first is the stage of acute congestion of the mucous membrane. Just imagine these small bronchioles having a swollen mucous membrane lining their interior and you can realize how little room there is for the air to get through. In addition to the congestion there is always some spasm of the muscles, just as you have in croup. The first stage, therefore, of capillary bronchitis is one of congestion and spasm of the muscular structure of the bronchioles. Hence, something is required that will reduce the congestion and combat the spasm. Use hot applications, the old-fashioned flaxseed poultice, or the mustard poultice, just enough to draw the blood to the surface and away from the affected area, and you permit the entrance of air into the bronchioles. The inhalation of steam, creosote, tincture of benzoin, are all useful.

Then comes the second stage. The mucous membrane begins to secrete mucus, and then you must get rid of this thick, viscid mucus that is being poured out into the air tubes. You must get air behind this mucus so that the child can cough it up. But in the child with its small bronchioles and weak muscles it is impossible to get air behind the mucus. During this stage I have always found belladonna a life saver. It checks secretion, thus lessening the production of mucus and at the same time stimulates respiration.

Dr. Gilbert's suggestion of injecting saline solution into the bowel is certainly an excellent one, and I appreciate the opportunity of hearing him speak of this success with this expedient.

One of the dangers in capillary bronchitis is the extension of the disease into the air cells, producing a pneumonia. There is danger of a broncho-pneumonia, or even a lobar pneumonia setting in. I have had considerable success in preventing the occurrence of a pneumonia in these cases by means of aconitine or aconite. It is the best drug to check the extension of inflammation along mucous membranes. I prefer the alkaloid to the tincture. It has given me splendid results.

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Dr. Samuel E. Woody, Louisville: I wonder why no one ever thought of this treatment before. It is rational. There is no doubt that it

helps to eliminate the toxins that are accumulating in the system. That shows, however, that the case was not one of simple bronchitis, but an infectious disorder. A simple bronchitis would not come on so suddenly, the temperature jumping up to 104 degrees, nor would it subside so quickly. As Dr. Gilbert says, capillary bronchitis is practically always a broncho-pneumonia; whenever the inflammation extends down into the small capillary tubes there is necessarily inflammation of the lung tissue around the bronchioles, and an involvement of the air cells at the end of the tubes. But in Dr. Gilbert's case I think he had something more than a mere capillary bronchitis. The symptoms all speak for an infectious disorder, or it could not have been relieved so markedly by the treatment instituted.

Simple broncho-pneumonia is usually due in primary cases to the pneumococcus, and in secondary cases to the streptococcus and staphylococcus. I think the doctor's case was a pneumococcus pneumonia that ran its definite course. I would like to ask the doctor whether the case got well by lysis or by crisis.

Dr. Gilbert: The case continued its course for ten days.

Dr. Woody: That is about the time when a pneumococcus pneumonia would subside.

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Dr. R. A. Bate, Louisville: There have been many kinds of treatment that have given satisfactory results, beginning with the poultices which have been replaced recently by the various glycerinated applications which have given such satisfactory results in the hands of many. It seems that the essayist's treatment is certainly rational. It accomplishes what all these other treatments mentioned accomplish. It certainly must go through the system, and, as was suggested by several, assist in eliminating the toxins, assisting the liver in its functions and thus hastening resolution.

In pneumonia we find an absence of chlorides in the urine. In the lobar pneumonia of the adult, as these chlorides reappear, the prognosis becomes more favorable. Why these chlorides are absent I do not know, but it is right here that Dr. Gilbert's treatment may be doing something that no other treatment can do. Therefore it is a rational treatment and I have no hesitation in endorsing the paper.

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Dr. Thos. J. Shoemaker, Morganfield: I was very much pleased with Dr. Gilbert's paper. I wish to say a word about external applications. I think that the lung of the child should be protected by a warm padded jacket. The old flaxseed poultice is too sloppy. All pharmaceutical houses are now making a plaster of earthy matter and glycerin that makes a most excellent

poultice. It keeps the patient's chest warm; it is clean, and the patient improves from the time the poultice or jacket is put on. I have used the poultice and jacket time and again, and like them very much.

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Dr. R. D. Pratt, Shelbyville: Anything that is new is to be considered very seriously. Dr. Gilbert's most excellent paper has awakened a trend of thought in us that is new. Whether the virtue of his procedure lies in the elimination of the toxins from the bowel, or in the stimulation of the saline solution on the kidney, or flushing out the toxins through the kidney, or what not, is, of course, problematical. At any rate, the doctor has given us something to think about. I had never thought of treating capillary bronchitis, or broncho-pneumonia, more properly speaking, by irrigating the bowel.

Dr. Parish struck the keynote when he spoke of steam inhalations. I do not believe in the use of aconite. In very robust children, in the first stage, I occasionally use aconite where I have an intelligent nurse at hand who can watch the case all the time; but aconite is so dangerous, being a heart depressant, that when given promiscuously there is no telling what may happen. I would advise extreme caution in its use.

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Dr. W. T. Bruner, Louisville: I wish to endorse Dr. Barbour's treatment, the use of alkaloids. For the past seven years I have been using aconite in the treatment of the broncho-pneumonias of children, and I have yet to learn of a single instance in which I got any depressing effect from the drug. I think the trouble most men have is in giving too large a dose. I use 1-10 minimum doses of aconite in the early stages of the disease, and when the secretions begin to pour out I add 1-10 of a grain of belladonna, or I use a combination of atropin and aconitine. Since I have been using the alkaloidal treatment I have had much better success than before. I have cut down the course of the disease about one-half from what it was when I treated it according to the older methods.

* * * *

Dr. Gilbert, closing the discussion: I want to emphasize one point that seems to have been overlooked in the discussion. The paper had reference entirely to bronchitis occurring in very young children, under six months of age, where the bronchial tubes have a caliber of about 1-1,000 of an inch, and where much mucus is being secreted.

As to my treatment, that of saline irrigations, it is based entirely on the theory of elimination. It eliminates the toxins, and by acting as a diuretic, it also hastens the elimination of these poisons through the kidney.

As to the use of poultices, take the case of an infant such as the case I reported, six weeks old, and pile on its chest one pound of flax-seed or a pound of putty, and he has to lift that pound of material with every breath he takes. A child at that age breathes from 68 to 70 times a minute. That will give you an idea of the work the child must do to lift a pound that many times a minute. The child becomes exhausted, and that certainly does not help it any.

My treatment leaves the delicate stomach of the infant for nutrition purposes. Keep all drugs out of the stomach because we all know what medicines will do to the stomach, even in an adult. These observations were made over a year ago, and I have now treated eleven cases by the same method with uniform success.

INFECTION BY BACILLUS AEROGENES CAPSULATUS, OR GAS BACILLUS, WITH REPORT OF A CASE.*

By R. LINDSAY IRELAND, M. D., Louisville, Ky.

This bacillus, which proves so fatal to the unfortunate human victim in whom it finds suitable conditions for its proper growth and development, is large, non-motile, non-flagellated, non-chromogenic, sporogenous, *markedly aerogenic*, and purely anaerobic, is easily cultivated in artificial media, readily stained by the ordinary method, and by Gram's method.

It is probably identical with the bacillus phlegmone-empysematose of Frankel, and was first discovered by Welch, while endeavoring to learn the cause of death in a man dying suddenly of aortic aneurysm with a peculiar gaseous emphysema of the subcutaneous tissues and internal organs, and copious formation of gas in the blood-vessels. In the case studied by Welch, the blood was thin and watery and contained many gas bubbles; the coloring matter of the blood was dissolved out and stained the tissues a reddish bronze hue; many of the bacilli in almost pure culture, were obtained where the bubbles of gas abounded most.

This organism is of rather wide distribution, commonly occurring in the intestinal canal of horses and human beings; consequently it is deposited by horses on streets and roads, or wherever horses frequent. Hence injuries occurring to persons coming in violent contact with such infected places are liable to be infected with this organism, and if conditions are favorable for its development, a very serious infection will arise, such as in the case I shall subsequently narrate. Following Welch's dis-

* Read before the Kentucky State Medical Association, October 20, 1905.

covery further investigation and experiments were extensively made by Welch and Nutall, and also by Welch and Flexner. I shall not take your valuable time in a detailed description of these investigations nor a lengthy description of the bacillus, but rather give some of its characteristics and the clinical symptoms produced by its introduction and development in the human organism. The gas bacillus occurs in pairs or irregular groups; it varies somewhat in size and length in different culture media. Its spores resist desiccation and exposure to the air for many months. Being anaerobic it is of course necessary to exclude the air from contact with the culture media, in which state the colonies readily grow and generate gas, as they do in animal tissues. The fact that the air must be excluded from the organisms for its development, explains the reason many more cases are not met with, for oxygen supplied by the circulation of the blood is in most cases sufficient to prevent its growth. Hence development usually occurs in sites that are least supplied with blood, such as joints, fractured bones or necrotic tissues, the dead embryo within the uterus, or strangulated abdominal viscera. Following the introduction of this organism in any manner into the circulation, if at such time the blood circulation should become quite feeble, and hence the supply of oxygen be materially diminished, this bacillus may then multiply, and the more the supply of oxygen is cut off the more rapid will be the growth of the bacillus. After the death of the victim the growth of the bacillus and consequent development of the gas are marvelously rapid. The liver is one of the favorite places for development of this organism, but nearly all tissues may be invaded by the gas bacillus, and wherever the bacillus *aerogenes capsulatus* is in the process of development, there will be found the evolution of this gas.

"The symptoms following infection by the gas bacillus are quite uniform, consisting of redness and swelling of the wound, with rapid elevation of temperature and acceleration of pulse; the wound usually becomes emphysematous, and discharges a thin, dirty, brownish, offensive fluid that contains gas bubbles and is sometimes frothy." Patients occasionally recover when the infected part can be promptly amputated, but death is the usual outcome. If autopsy be made some hours after death, the gas bubbles will be found to be quite numerous, so much so as to cause the Germans to designate the organs as "Schaumorgane" (frothy-organs).

Report of Case.—On August 19, 1905, a young farmer twenty-one years of age, very robust and strong, was driving in a buggy on the streets of Taylorsville, Ky., when his horse

became frightened and unmanageable and ran away; the young man jumped out of buggy while horse was going at full speed, and lit on his feet in such a way as to cause a compound lateral dislocation of the bones entering into the formation of the left ankle joint, so that the fibula was driven into the dirt of the street. Drs. Shepherd, Seely, Matthis and McMahan of Taylorsville attended the injury by thoroughly irrigating the wound and under an anaesthetic reducing the dislocation, introducing drainage and suturing wound. Patient had a fairly good night, and on the morning of the 20th, some 16 hours after injury, pulse was 100 and temperature 100, wound looked very well. Twenty-four hours after injury pulse was 108 and rather weak, temperature 100 1-5; complained of pain in foot and leg. Dressing was removed and wound was found to be discharging sero-sanious fluid; sutures were removed and wound irrigated with 1-2,000 bichloride mercury solution and gauze steeped in bichloride applied over wound.

On morning of 21st, or 36 hours after injury, pulse was 110 and weak, temperature 101 1-5, had had a bad night, suffered with pain in foot and leg, no appetite, foot swollen and red. On afternoon of 21st, or 48 hours after injury, pulse was 115 and weak, temperature 101 3-5, wound still discharging same character of fluid, with foul odor, and on pressure about wound gas bubbles would appear at site of discharge; leg swollen half way to knee, reddish bronze in color and on pressure of the hand on leg a crackling sound and sensation was heard and felt.

Amputation of foot was advised by the physicians but refused by patient. On morning of 22nd, or 60 hours after injury, pulse was 134 and weak, temperature 102 and a profuse perspiration bathed the patient. On inside of ankle several gas cysts were seen, discoloration of leg extending, also the swelling; suffering pain which required morphia to alleviate. On morning of 23rd, or 72 hours after injury, pulse was 134, temperature 102 3-5; very restless, and all conditions were worse. Again amputation was advised and the writer was wired to come prepared to perform this operation. Upon arriving at the bedside of patient on night of 23rd, 90 hours after injury, this condition existed: Pulse 165, and barely perceptible at wrist; temperature 103; bathed in clammy perspiration, suffering intense pain, leg swollen to body and reddish bronze in color, profuse sero-sanious foul discharge from wound, gas bubbles continually appearing at wound exit, leg somewhat emphysematous. Patient being entirely possessed of all his faculties was told of his condition just as I saw it, and of his chances of

recovery with amputation and without same as I believed them to exist; viz., about two chances in one hundred with amputation of leg at juncture of middle and upper third of thigh, and no chance without amputation. I advised amputation, telling him of probable death on operating table, and he insisted on amputation. Accordingly a hypodermic injection of strychnia sul. gr. 1-30, atropia sul. gr. 1-100 morphia sul. gr. 1-4, hyoscine hydrobrom gr. 1-100 was given to improve heart action and reduce amount of anesthetic to a minimum. I amputated the leg at juncture of upper and middle third of thigh, closing flap with silk worm gut sutures two inches apart, after introducing three drainage tubes. Patient stood operation, which was completed in 35 minutes at night by lamp light in country house, very well under the circumstances, but died in two hours after being put to bed. Such is the usual termination of cases infected with the gas bacillus.

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DISCUSSIONS.

Dr. A. M. Cartledge, Louisville: I am sure that we have all been both entertained and instructed by the recital of this case. Like most of the gentlemen present, I have not seen many of these cases. I can recall only three or four in my experience. The rapid and disastrous effects caused by this bacillus are not equalled by any other organism. To-day we do not have to deal with the much dreaded hospital gangrene of old, and oftentimes I think that those cases must have been cases of gas bacillus infection. They ran such a rapid and fatal course.

The principal lesson to be learned from this case is that at the very first appearance of emphysema about an infected wound there should be no delay or hesitation as to what shall be done. We should not temporize with washings and incisions. My experience has been that every one of these cases dies, and the only hope, and a very slender one at that, is amputation of the limb at the earliest possible moment. I recall a case that Dr. Bullitt and I had about a year ago. A young man fell off a telegraph pole, fracturing the bones of the fore arm near the wrist. In a marvelously short time, that night, edema set in, and there was crepitation because of the formation in the tissues of gas. He was brought on here immediately, but by the time he reached here the infection had extended to his shoulder and death soon ensued.

I have not seen any case of infection to equal this. Therefore, the practical lesson to be learned from this paper is that in these cases of compound fracture where bacteria gain access to the wound, that at the very first sign of gas formation we should amputate the limb high up.

I recall another case in which just the same

state of affairs existed as in the other case I mentioned, and although I amputated the arm near the shoulder, the man died about sixty hours after the operation. I have never seen one of these cases get well, and I am sure that if I had such a case now, I would amputate immediately. The organism in the case resembles the tetanus bacillus. It, too, is an anaerobe. It buries itself in the tissues, and to drain such a case as you would one of ordinary infection is futile and a loss of valuable time.

"THE IRREGULAR 'REGULAR'"*

By GEO. E. DAVIS, M. D., Lawrenceburg, Ky.

True etiquette is like unto a fine fabric, wrought from the finer feelings of the heart, and into this fabric every true man all unconsciously weaves the picture of his life—silhouetted by his word, thought and deed. Ethics, medical or otherwise, whether pertaining to the individual, state or nation, are determined not alone by environment, association and education, but are evolved from an altruistic spirit of good breeding, refinement and fair-play—inherent of Divinity.

Aesculapius was reputed of Divine or Mythological origin by the Greeks, and esteemed by Homer as a *blameless physician*. The ancients erected a temple to this Deity of the Healing Art, and serpents were everywhere connected with his worship, probably as a symbol of prudence and wisdom; but if interpreted by the manners of a few of his latter-day saints, they were a better symbol of infinite cunning and strategy in beguiling his patrons, defiling his art and despoiling his temple. Understand me, I am no purist nor Puritan preaching perfection, neither holding the healing art divine nor its devotees blameless. Rather I plead for medical self-respect, professional dignity and that justice, beneficence and fair-dealing toward one another which characterize the conduct of gentlemen. And here let me enjoin medical organizations and societies to adopt the same high standard of government that obtains to the individual—the golden rule—for "One of the oldest and most important elements in any system of government is the conception of justice. Society is impossible unless those who are associated agree to observe certain rules of conduct toward one another; its stability depends on the steadiness with which they abide by that agreement; and, so far as they waver, that mutual trust which is the bond of society is weakened or destroyed."

Evolution, in the development of modern

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medicine, as in all things, has played a part and is responsible for present conditions as concern both medical organization and medical conduct. The elements that characterize its progress and maintain its equilibrium are the processes of self-assertion and self-restraint. In feudal times might made right and "primitive man knew no further than the display of self-assertion in grasping that which suited his fancy or gratified his senses." In the struggle for the survival of the fittest "he slaughtered his neighbor that he might gain his possessions." * * In the evolution of society, it becoming evident that unlimited gratification becomes destructive to happiness, we have learned self-restraint, but the old instinct, though skillfully concealed, continues to guide the actions of many." Pelf, power and position are the mainspring of present medical progress. And pelf—always pelf—often abetted by ignorance and cupidity, is responsible for most medical misdeeds to-day, and is the legitimate father of the illegitimate "irregular 'regular'", paradoxical as this last clause may sound.

A few frailties of this bastard brother suffice to point a moral and adorn a tale.

First let us diagnose his case and then if possible provide a remedy, the latter preferably a specific. The history of the irregular or charlatan, within and without the profession, is an unsavory story, nor can any period from the time of Celsus to the present good day claim immunity from the depredations of this palpable fraud, designing malefactor, wan executioner. As early as the dawn of the Christian era Hadrian, history relates, afflicted with the distempers of age, abandoned himself to the quacks and star-doctors. They dispatched business so fast that he did not have long to wait for a bill of mortality to the next world, and he scarce had time to indict a parting line to his departing spirit:—

"Ah, gentle, fleeting, wavering sprite,
Friend and associate of this clay,
To what unknown region borne
Wilt thou now wing thy distant flight,
No more with wonted humor gay,
But pallid, cheerless, and forlorn."

Another and later classic illustration of the mountebank may be found in the "Adventures of Gil Blas," in the person of "Dr." Sangrado, whom LaSage well defines as "a tall, withered, wan executioner. This fore-runner of the undertaker had an aspect suited to his office: his words were weighed to a scruple, and his jargon sounded grand to the ears of the uninitiated."

The noted and notorious Gil Blas, a servant of this imposter, became his pupil, and quickly imbibing the principles of 'bleeding and drenching,' donned his master's garb and pro-

ceeded to aid his preceptor, who, by the way, needed no aid, in making widows and orphans with a celerity that discounted the siege of Troy. In his rounds Gil Blas met his friend Fabricio who derided him for assuming the address and garb of a physician, but with the enthusiasm of the new convert he defended his conduct with this retort:—"Understand me to be the substitute of Dr. Sangrado." I have lived with him these three weeks. He has bottomed me thoroughly in medicine: and, as he cannot perform the obsequies of all the patients who send for him, I visit a part of them to take the burden off his conscience. He does execution in great families, I among the vulgar."

Gil Blas and his master, however, were up-to-date in one particular—"medical graft." The following episode furnishes a clew to their methods. Dr. Sangrado commissioned Gil Blas to visit some of his patients and to collect for his services, promising him one-fourth the fees. Gil Blas, having performed the services, appropriated one-third of all he received before paying the balance to his master, and afterward accepted one-fourth the remainder. As to the final division Gil Blas says:—"I had reason to be content with my dividend; since, having determined to keep back one-third of what I received in my rounds, and afterwards touching another fourth of the remainder, half of the whole, if arithmetic is more than a deception, would be my perquisite. This inspired me with new zeal for my profession."

But it is not with ancient or mediaeval characters and manners this discussion is concerned, but more nearly with the fraud and pharisee, who, with as little learning and perhaps less conscience than Gil Blas, masquerades as a modern Hippocrates. That the "Irregular 'Regular'" is a pharisee goes without saying, and how unfortunate that the aphorism, "Physician heal thyself," could not oftener have a personal application in his case, for then soon there would be only a few of them left.

With this brief history of the "Irregular 'Regular'" before us we will examine in detail some of his methods as manifested at present and see wherein they resemble or differ from the irregular practices of the past.

First, let us scrutinize him as a "medical grafter." You must agree with me that the term "graft" literally translated means robbery or theft, "for as applied among its devotees, it implies the offering or accepting of bribes between medical men to promote the influencing of patients toward accepting the services of the dividing surgeon, irrespective of the quality and value of the services rendered." To classify this venal practice of the "division of fees" simply as "irregular" expresses it

mildly indeed. And in the collection and distribution of the boodle it is altogether probable that the conspirators in the game, the surgeon who solicits and the physician who refers the patient, not seldom administer and receive the "double cross," the issue depending solely on who collects; for the maxim, "there's honor among thieves," doubtless is observed oftener in the breach than in the keeping. The episode, above related, of Gil Blas and his master furnishes a key to the situation. But to complete the identification of the boodlers, and that you may recognize them on sight, Henrotin has furnished a heliograph of them, to-wit:—"The individuals affected by a forlorn hangedog look about them when first afflicted and an uncomfortable feeling of malaise, accompanied by chills and fears, which after proper incubation is replaced by a brazen hue and a cold stare in the established and pronounced form of the disease." Please preserve this image for ready reference.

Again let us view the "Irregular 'Regular'" from another angle; for, if anything, he is versatile, many-sided. This inspection of him will treat of his part as a conspirator in the role of a professional perjurer in personal damage suits against municipalities and corporations. These are harsh words but true.

Theodore Waters has recently published in "Pearson's Magazine" a series of articles under the title of "The Profession of Getting Hurt," in which he exposes the professional malingerer, the shyster lawyer and the fake doctor. Investigation of the personal damage suits against the city of Chicago so frequently demonstrated a conspiracy on the part of this trio to mulch the municipality, as to lend the city a "bad eminence." He observed that when the press reported personal injuries that swarms of shyster lawyers beset the injured person who, by the way, often was a professional malingerer. He further observed that "by a curious co-incidence the clients of many of these law firms have employed the same doctor, and that one doctor was found to have been in attendance in over one hundred of the suits against the city." I can, however, speak with certainty concerning those physicians who make a practice of bolstering up accident cases. In the great game of euchering the people by means of damage suits, the shyster lawyer is the right bower, the fake doctor the left bower. Everywhere you will find them working together.

Such men are as much abhorred in the medical societies as the shyster lawyer is abhorred in the bar associations; but as long as their surface conduct is within the code it is difficult to counteract their evil influence.

Unfortunately this scandalous combination

does not confine itself to the great municipalities; it infests the smallest villages possessed of a charter, and pursues corporate interests everywhere; railroads are a favorite prey. The existence of such conditions is a sad commentary on the two learned professions involved; and what makes it worse is that the "Irregular 'Regulars'" in both professions—frauds, hypocrisies, scoundrels that they are—dress themselves up like the pillars of morality in order to undermine its very foundation, the one in the garb of physic, the other in the livery of the law.

The third phase of quackery indulged by the "Irregular 'Regular'" to which I invite your attention is the undignified and contemptible habit of *soliciting* practice. Here is a field peculiarly adapted to the fullest development of those faculties so characteristic of the fakir. He is infinite in cunning and strategy, and so fertile are his resources that he is a veritable genius in scheming to get practice.

The favorite method of the "Irregular 'Regular'" is by indirection. Covertly he lays the snare and sets the net, but if pressed he does not hesitate to chase the game directly and in the open. Not infrequently we discover him paying "friendly" or "social" calls to other doctors' patients. Of course such calls are "purely personal;" however, the intruder, before leaving, does not fail to relate how well some of his patients, similarly affected, are doing, and tell what uniform and great success he has in such cases. Or again, we learn of his making frequent inquiries of the friends or relatives as to the condition of patients not his own, with a view of robbing the doctor in charge of his patient or worming himself into a consultation. And touching consultation I quote the opinion of a recent authority on the matter that exactly expresses my view on the subject:—"I believe in exclusive consultation—an exclusiveness that will shut out the moral leper, the notably unworthy, the palpable imposter and that will forever bar the criminal abortionist. And I thank God that there is no law to prevent the exercise of individual judgment and discretion as to whether or not we shall meet Dr. Scoundrel in these sacred relations. Be an upright regular yourself, first, last and always, and see to it that you associate only with upright regulars. * * To solicit a consultation is as contemptible as to solicit a patient. No gentleman will ever be guilty of either of these grave offenses."

But about the worst of the tribe of solicitors (and the most amusing cuss of the lot) is the "incubator" doctor or the "kid chaser." This is the fellow who, when his wife discovers that his neighbor's wife is pregnant, begins to court the husband, and his wife the neigh-

bor's wife. This fakir and his spouse would court the embryo if they could, but are forced to await developments. This chap, on reading wedding announcements, if he dared, would mail his professional card to the bride with his compliments—for future reference.

And think you that senility is free from his blandishments? Not at all, well knowing that to tottering age there soon must come a fall, he pursues his victim to the grave and there, reluctantly, delivers him into the hands of Charon. However, I have heard it whispered that in order to be in attendance long and often, he steers him over the *dope* route.

Nor is the stranger within the gates neglected. Especially courteous and attentive is he to the new-comers, making it a point to meet them the moment they arrive. His wife is equally assiduous, for it may be of interest to her consort in case a doctor's services are needed. Even his confrere, particularly if severely ill, is not immune from this fakir. Taking advantage of the situation, unsolicited he pays assiduous attention, with the hope of looking after his afflicted brother's work during his illness, or falling heir to same in case of his demise.

An innovation of the solicitor is the association with him of the *itinerant*, who monthly spends a day in his office. He thereby secures the advantage of the itinerant's card-announcements in the county or city papers — and, of course, graft in the division of fees, etc. It goes without saying that the doctor reciprocates, by referring work to the itinerant—and the patient suffers and pays the bill. Not long since such a proposition was made me by an itinerant *ophthalmologist*.

The finishing touch to this *brazen image* is a conspicuous sign, large enough to cover the side of a house. So we note that everything is fish that comes to the solicitor's net. But to enumerate all his iniquities would make an endless story, altogether unpleasant to dwell upon—let him rest.

We have purposely avoided the discussion the lowest type of the "Irregular 'Regular'"—the criminal abortionist, he who murders the unborn. Fate limits the production of a certain kind of monster to a few. He is unspeakable! Nothing short of the hang-man's noose meets his case, and we pass him without further comment.

Having considered at length the history, evolution and the present status of the "Irregular 'Regular,'" the all-important question confronts us—have we an adequate remedy for the wanton conduct of this wanderer without-the-code? Doubtless quackery is a disease, more or less infectious, and when fully developed seldom cured, especially if of the irregu-

lar or atypical type we are now discussing—every case being a law unto itself. Our reliance, perhaps only hope, seems to reside in prevention. How unfortunate it is that in every business in life—in every trade, in every profession, there are those who bring it to ruin! These are the frauds. It is always just a few who cause us trouble, just a few who stir up the animals. Satan was not satisfied with the realms of bliss. He revolted, vaulted the battlements of Heaven and descended to the "Dark Abyss"—fit abode!

So to regulate these few, all organizations from the smallest communities to the state and nation have devised rules of conduct and wrought them into a fabric—known as by-laws, codes and constitutions.

But the code, or even legislation, is equally futile to deter the quack (regular or irregular), for like the Indian, the only good quack is a dead quack. But as we have not yet reached that stage of civilization to make good quacks as we did good Indians, the only recourse left us to stamp out quackery — the greatest foe to medicine—and in my opinion the true remedy, is PUBLICITY, or the education of the people as to the methods of the enemy. The most potent agent in this direction should be and is the public press—lay and medical; and just recently there seems to be an awakening along these lines. Of course honor and decency are a sealed book to quacks, hence it is the plain duty of every reputable doctor, in justice to himself and the public, to turn the light on these frauds. The chicanery, robbery, and villainy—to the depths of murder—perpetrated by these criminals should be exposed. There should be no compromise with dishonor. Individually we can do much, and we should constantly endeavor to instruct our patrons and the community in which it is our fortune to reside that the sole motive that prompts quackery is PELF—and this at the expense of the public wealth, health and happiness—regardless.

But what I wish to especially impress on this society is, that the medical profession, organized as a unit, could and should bring such pressure to bear on the press as to influence it to give the same publicity to the condemnation of quacks and quackery as it has in the past lauded their mock virtues. And, in equipping for the battle, I would advise that our armament should consist of something more substantial than talk, resolutions, memorials, etc. In the long run it would prove economical, legitimate and wise for us to liberally *compensate* the press for its space, time and brains—which now are at the sordid service of the enemy. Expensive?—yes, brains come high, but they are the most valuable asset I know. Pub-

licity is the one and only remedy to heal the breach in medical morals and bring about an evolution and consummation so devoutly to be wished. Any other method would precipitate a revolution.

Perhaps some of you would suggest legislation. However, my advice, born of experience, hence valuable, is—DON'T.

In the language of Fra Albertus, the less you have to do with the law and lawyers the happier you will be.

Publicity then, and again publicity of the "Irregular 'Regular'" in the County, State and National Medical Societies; and like exposures by the press—medical and lay—gradually, by a process of education and evolution, though slow as the "Procession of the Equinoxes," may finally bring about the extinction of this parasite on the body-medical. Publicity in due time would thoroughly acquaint even the masses with the physiognomy of the fakir, for the pathology of this breed is so characteristic that a diagnosis is possible on sight—even the gate and gaze are incriminating. He has the demeanor of "the hunted," or criminal. He goes about with his gaze turned to the pavement or fixed on vacancy; striding slowly or rapidly along, or stopping short in his walk as one might do whose mind was engendering crime or driven by fierce passion, and—

"You may sometime trace

A feeling in each footstep, as disclosed
By Sallust in his Catiline, who, chased
By all the demons of all passions, showed
Their work, e'en by the way in which he
trode."

PLEURISY, ITS PATHOLOGY, DIAGNOSIS AND TREATMENT.*

By JOHN D. JACKSON, M. D., Danville, Ky.

My effort in preparing this paper was to make it as concise as possible, only including that which I think to be of use to us as general practitioners.

The majority of cases are due to some sort of infection, most commonly to the tubercle bacilli, very frequently to the pneumococci and to rheumatism. Among the occasional sources of infection may be mentioned trauma, typhoid fever, and carcinoma.

Pleurisy is sometimes the result of pulmonary embolism. Infection of the plura with pneumococci usually results in purulent effusion, as in lobar pneumonia with empyema; when the streptococci and staphylococci are present the effusion is usually but not always purulent.

Cases due to typhoid bacilli usually occur about the third week of the disease and the fluid is generally purulent.

Pathologically, pleurisy may be summarized as localized and general, dry pleurisy and pleurisy with effusion. In the acute, dry pleurisy the lesions are usually circumscribed, and the part affected has a dull non-glistening surface, due to the slight fibrinous exudate. If this exudate becomes more copious the pleural surface presents a shaggy appearance. In the lighter grades the products undergo fatty degeneration and are absorbed.

During the first stage of sero-fibrinous pleurisy the changes are the same as those in the dry pleurisy, though, of course, of a severer grade, and usually involve the greater portion of the pleura on the affected side. The entire pleura becomes coated with the exudate which varies greatly in thickness and arrangement; the inter-lobular pleural surfaces are invaded, as a rule, in consequence of which they become adherent. The fluid exudate varies greatly in quantity (from one-half to 8 pints), is generally of a straw color, sometimes of a dark brown color. This fluid gravitates to the most dependent portion of the pleural cavity, unless there be adhesions between the pleural surfaces.

Let us now consider the condition of the blood in the common forms. In tubercular serous pleurisy, the lymphocyte is by far the preponderating cell, polymorphonuclears being present in very small numbers.

Effusions due to the pneumococci and streptococci, in the serous stage and before the exudate has become purulent, show an entirely different picture; the effusions show at all stages great preponderance of polymorphonuclears over the lymphocytes.

The preponderance of lymphocytes in a serous exudate is almost positive proof of its tubercular origin. This knowledge is most important, because it can be obtained from three to six weeks before positive or negative results can be secured from the inoculation of guinea pigs with the exudate, and the proper climatic and hygienic treatment can be immediately instituted. In primary serous pleurisy the blood does not show a leucocytosis, nor does a tubercular pleurisy show a leucocytosis; serous pleurisy of other origin may show it.

The white blood count is of value in two ways in the diagnosis of serous pleurisy. If the physical signs are doubtful, and there is no leucocytosis the condition is almost certainly not pneumonia or empyema, but serous pleurisy. If there is serous pleurisy and a continuous leucocytosis, some complication is present. The number of white cells is not influenced by the presence of blood or microscopic

* Read before Kentucky State Medical Association, October 19, 1905.

pus in the fluid, or by the degree of fever.

CHANGES IN THE NEIGHBORING ORGANS.

So long as the normal action of the lung is not overcome by the fluid in the pleural cavity, the lung does not produce positive intrathoracic pressure, and the adjacent organs are not displaced; not until the sac is one-half filled is the contractility of the lung destroyed. Large effusions displace the pleural membranes, causing compression of the pulmonary structure above the effusion. A large effusion may push the lung up and back against the vertebral column and produce an atelectasis, while the total absence of air in the lungs is chiefly due to the compression of the fluid; the air may be absorbed by the vessels or even by the fluid. The fluid may also press against the mediastinum causing displacement of the heart. The liver may be below the ribs on the right side, due to large effusion. On the left side may be noticed pressure displacements of the stomach and transverse colon, and to a slighter extent, the spleen. Adhesions, however, may prevent any displacement of the adjacent organs.

As a rule, the onset of the disease is abrupt, marked by fever, and may or may not be preceded by a chill, and is followed by a stitch-like pain in the side; but it may be tearing or dragging in character, also marked by dyspnoea and cough. The pain is most frequently on a level with the nipple or a little below, and more often anterior or in the axilla than posterior; it is caused by the rubbing together of the inflamed surfaces of the pleura, and hence is excited by respiration and cough.

For this reason we find the patient lying on or leaning on the affected side with his or her elbow pressed to the chest wall; or, if lying down, he will lie on the affected side to diminish the respiratory movement. The breathing is shallow and hurried, though if the pleural sac fills slowly, dyspnoea may be absent, except on exertion. The temperature is as a rule 100 to 103. Usually at the end of one to three weeks the temperature falls by lysis and soon reaches the normal; in many acute cases the temperature is of a continued type.

The pulse is quickened, beating 100 or more, and its volume and tension is diminished. These pulse characteristics are to be attributed to the pressure of the fluid upon the heart and great blood vessels. Loss of appetite is commonly present and more rarely and occasionally vomiting may arise at the outset. Constipation is the rule. The amount of urine is diminished both during and while the exudate remains at the maximum level. The daily quantity may not exceed eight or ten ounces, but the specific gravity is increased, ranging from 1.018 to 1.028. An increase in the daily

amount of urine is usually the first sign of commencing absorption of the exudate. The cause of the diminished secretion of the urine is diminished arterial pressure.

Under physical signs let us consider or rather include both serous and purulent pleurisy, as the physical signs of both are practically the same, with the exception of Bacelli's sign in empyema, viz; the fremitus produced by the whispered voice is not transmitted to the hand laid over the effusion; whereas, in serous effusions the vibrations are transmitted.

Under these signs we shall also confine ourselves principally to pleurisy with effusion, as those of the dry pleurisy have practically been mentioned with the exception of the dry leathery friction sound we get on auscultation, which is the most intense at the end of inspiration.

During the stage of effusion, on inspection, if the pleural sac is distended, there is noticeable bulging in the middle and lower third of the chest wall, intercostal spaces are widened and shallow, the apex of the heart may be displaced, diminution of movement and dyspnoea.

On palpation there is found limited expansion, separation of ribs and obliteration of intercostal spaces, diminished tactile fremitus (unless there be bands of adhesions). Location of the apical impulse and displacement of the spleen and liver, mensuration shows the difference in expansive motion.

At first the percussion note is impaired, a little later there is dullness with an increased resistance. The dead percussion note that is found is caused by the fluid, and if it is free by changing the position of the patient the upper level of the dullness will also change; when the patient lies down the dullness will be found to be about one rib lower than when sitting up. Above the line of dullness the note is hyperresonant. If the lung is compressed against the vertebrae there may be bronchial breathing. In large effusions the tympanitic resonance of the second inter-space does not change when the mouth is open. The upper limit of dullness in large effusions is higher in the spine and slopes downward and is lowest in the front. This line is only obtained when the patient is in the erect position. As the effusion appears the breath sounds become weak, also distant and have a bronchial quality. If the fluid is increased to a marked extent the breathing is suppressed and the respiratory sounds become absent, except near the upper level of the fluid posteriorly, where distant bronchial breathing is audible. These sounds may be of a metallic character; on the opposite side the breath sounds may be intensified. The vocal resonance usually has a nasal quality.

Succussion will usually detect the fluid. Our diagnosis may be confirmed by the aspirating needle. The variety of pleurisy can be determined by examination of the sputum and blood.

DIAGNOSIS OF DIAPHRAGMATIC PLEURISY.

There are certain special characteristics which enable the diagnosis of this condition to be made, even in the absence of physical signs. These consist chiefly in certain tender points; the first is round the base of the thorax at the level of the insertion of the diaphragm; the second is the posterior angle of the neck where the phrenic nerve lies on the scalene muscle; and the third is found where an imaginary line prolonged in the direction of the tenth rib cuts the para-sternal line. The presence of tenderness and pain at this point is most important, and is almost pathognomonic of diaphragmatic pleurisy, more especially of the localized suppurative form.

Other peculiarities of this form of pleurisy are: pain abnormally violent and diffuse; movement is almost suppressed in the hypochondrium and base of the thorax on the affected side; physical signs may be absent or consist in a limited tympanitic resonance at the extreme base, and minus breath sounds owing to the compression of the lungs by the effusion; occasionally there is pain on swallowing as the food passes the diaphragm, or possibly the vagus or phrenic nerve. It is important to remember that these effusions, when near the center of the diaphragm are out of reach of the exploring needle.

In concluding this diagnosis, it is well to differentiate pleurisy with effusion from primary lobar pneumonia.

TREATMENT.

Absolute rest in the recumbent posture is the best method of controlling the inflammatory process. At this stage quinine in moderate size doses should be administered. Locally the ice bag or the coil should be employed, preceded in robust patients by the abstraction of from three to six ounces of blood.

If the pain is violent it may be necessary to relieve it by a hypodermic injection of morphine. A saturated solution of iodine in olive-oil applied externally is beneficial. For the pain which continues in the side after all detectable signs have disappeared, the use of the constant current over the seat of pain for twenty minutes is said to give almost constant relief.

During convalescence the patient should take deep inspirations during the day to obviate pleural adhesions.

The sero-fibrinous pleurisy in the first stage

is treated the same as the dry pleurisy. During the stage of effusion the treatment should be to limit the extent and intensity of the inflammatory process; to accomplish the removal of the fluid and to support the strength of the patient.

To limit the extent of the inflammatory process we may again refer to the application of a saturated solution of iodine in oil, and also the ice coil, or to strapping. If the temperature is 101 or above, cool sponging of the body is useful. Strips of adhesive plaster firmly and evenly applied as for a fractured rib not only limit the amount of inflammatory product thrown out, but relieve the pain.

Of the internal remedies we shall refer to the quinine, the opiates and salicylates. The use of the diuretics and diaphoretics along with repeated doses of salines also aid in the reduction of the inflammation of the pleura.

As the inflammatory process subsides the temperature falls, and when it approaches normal we should try to remove the effusion. To accomplish this little can be done locally, though a saturated solution of iodine in oil, or equal parts of tincture of iodine and tincture of guaiac persistently employed, does good.

Mild hydragogue cathartics, and especially the salines, from two to four drams in the smallest amount of water on rising in the morning, stimulate absorption in the pleural cavities, by draining the blood of a certain amount of serum. Free diaphoresis (from the use of pilocarpine) sometimes assists, but it is contraindicated in the presence of feeble heart action or a marked displacement of the organ.

Before considering measures to increase the absorption, let us just for a moment consider the absorption power of the pleura; the absorption power of the pleura from streptococcus infection almost equals that of the normal pleura; but when the pneumococcus or the tubercle bacillus is the infecting agent its absorptive power is much less marked.

The absorption power of the sero-fibrinous pleurisy also varies with the length of the disease; at the beginning it is normal, but it progressively diminishes and is zero at the height of the disease.

Among the agents to promote absorption potassium iodide is probably the best, but its power is very doubtful. The patient should be put on a dry diet in order to increase the plasticity of the blood, which is thus induced to absorb the liquid of the pleural cavity. According to the text books in about 66 per cent. of the cases the fluid can be removed without aspiration, leaving 33 per cent. of the cases that defy all efforts at removal; in such cases the withdrawal of the fluid by thoraco-cente-

sis, or if purulent by thoracotomy must be practiced.

The indications for thoraco-centesis arise at two different periods in the course of pleurisy with effusion; first, during the febrile stage when one pleural sac is completely filled; second, in double pleurisy when both sides are half filled, since death may occur from rapid filling of one or the other sides; third, in cases of copious effusions upon the first signs of involvement of the unaffected side, such as moist rales, broncho-vesicular breathing and impaired resonance; fourth, attacks with cyanosis, and lastly, marked displacement of the heart, especially if one or more murmurs develop in the organ.

If the temperature has been normal for one week and the fluid not diminished, the chest should be aspirated. When aspirating the patient should sit up if possible, with the hand on the affected side raised so as to separate the ribs.

The point of election should be the most dependent place for drainage of the fluid. Twenty-four ounces at one sitting is said to be enough fluid to withdraw; more fluid, however, can be drawn during the febrile than during the afebrile stage. The fluid should drain away slowly.

Thoraco-centesis is to be repeated at intervals of several days if the fluid is not absorbed following the first operation. All the cases in which I have seen thoraco-centesis performed in the clinics, where in a different manner than we were taught by the text-books, as they all used large needles and allowed the fluid to escape until the desired amount was removed (sometimes as much as forty ounces), or until the patient began to cough or to show signs of syncope, dyspnoea or sudden intense pain, when the needle should be withdrawn immediately.

The treatment of empyema is purely surgical and the sooner it is done the better. Aspiration, as a rule, should not be continuously resorted to in empyema even if the fluid will run through the needle, as disastrous results frequently follow such treatment. The bad results are failure of healing, formation of fistula, osteo-myelitis of the ribs, retraction of connective tissue about the pleura, infection with tubercle bacilli, and lastly amyloid degeneration. (Anders)

In acute empyema aspiration is almost never curative; it is to be regarded as the surgical treatment only in a tubercular empyema in a young person with a rapidly progressive phthisis, because in such a case incision will prove fatal. It is a very useful diagnostic expedient, and enables the surgeon to prove the

existence of the pus, and to make a bacteriological examination of the same.

In a very dry effusion it is wise to aspirate and withdraw part of the effusion a day or two before operating. This enables the patient to take the anesthetic with greater safety and obviates the danger attending the rapid evacuation of a large amount of pus.

The surgical treatment comprises incision, rib resection, the operation of Schede and the operation of Estlander. In a recent empyema, incision and drainage, or rib resection and drainage, will often cure the case, and yet many of the results are unsatisfactory.

A chronic closed empyema is drained in the same manner, and if the lung will not fully expand and remains stationary for a month Schede's or Estlander's operation is required. An open chronic empyema, in which the lung will not expand, requires an Estlander or a Schede operation.

Should a pleural fistula develop after the incision, it may sometimes be cured by dilatation of the sinus, but in most cases it is necessary to resect one or more ribs.

In concluding I would like to report a case bearing upon this subject. Last August I was called to see a patient—female—age 30—married eight years—no children. History of having had a cough for four years, expectorating profusely during this time; has been gradually getting weaker and more depressed. Had copious hemorrhage every few days one year prior to this date. At this time the patient was complaining of severe pain in the right chest; severe coughing spells, nausea and vomiting; pulse 120, very weak. On examination of the sputum, tubercle bacilli were found. Physical examination detected fluid in the right side.

I aspirated the patient, removing six pints of greenish fluid, and microscopically found the tubercle bacilli present. Following the operation the patient improved rapidly; appetite and general condition showed marked changes for the better for about eight weeks, when patient complained of same symptoms. On examination I found that the fluid had re-accumulated.

The patient was again aspirated and found the fluid to be purulent instead of serous. Finding this, I only withdrew sixteen ounces for temporary relief.

On May 20th, under local anesthesia (using 1 per cent. cocaine oil) I performed thoracotomy, making an incision over the 5th rib about 1 3-4 inches long and resected a portion of the rib; removed one-half gallon of pus, inserted drainage tube for three days until discharge was serous, and removed the tube and let the wound heal by granulation.

Since the last operation the patient ceased

to have the night sweats, slept well, appetite good, gained flesh and did her own cooking, washing and ironing (against orders), no expectoration at all, although a slight cough. Three months later she removed to Lexington when the trouble arose again; she went to the hospital, was operated on and a month later died of pulmonary tuberculosis.

* * * *

DISCUSSIONS.

Dr. J. B. Marvin, Louisville: I wish to congratulate the essayist in presenting a paper that is strictly up-to-date. He has handled the subject on orthodox lines. I did not hear a word about pleurisy from catching a cold, or getting the feet wet, or from sitting in a draft. The consensus of medical opinion is that pleurisy is of bacterial origin.

Clinically, we most frequently see pleurisy dry, wet or purulent, or a mixture of all three. Primarily, it is caused most frequently by the tubercle bacillus or by rheumatism. As to the symptoms, these are apt to vary widely. I have had a case of pleurisy come to my clinic on a cold winter morning with the entire pleural sac filled up. There was no particular pain, but there was a little dyspnoea. Another patient with a small pleural patch will complain bitterly of pain and considerable constitutional disturbance. He would be a very foolish man who would judge the extent of any pleurisy by the severity of the symptoms present.

I am not always able to make a diagnosis of pleurisy, and yet it seems so easy. The physical signs are so patent, and the symptoms so typical, and the diagnosis ought to be as easy as though the word "pleurisy" were written on the patient's chest. But the lung may be resonant on percussion, either because the pleurisy is limited in extent or because it is situated posteriorly, and unless we take the trouble to examine the patient posteriorly, as well as anteriorly, we will in all probability say that there is nothing the matter with him.

Hyper-resonance ought always to excite the suspicion of a pleurisy being present. A tympanic sound ought to put you on your guard, and if there is much effusion, you will get a flat sound; but the most eloquent sign of all is the absence of sounds. Always be careful. The fluid may be extending slowly upward and you may get bronchial breathing until late, especially on the edge, as Dr. Jackson stated, and thus be thrown off your guard. I have been puzzled time and again as to whether the case in hand was one of pneumonia or pleurisy, and I have straddled and called it a pleuro-pneumonia, probably a little of both. And I have gone so far as to put in an aspirating needle and withdraw a little fluid before I was positive of my diagnosis.

Another point: pleurisy on the left side sometimes causes an immense amount of cardiac dis-

turbance, and the heart is swerved around on the right side. Look out that you are not thrown off your guard. Pleurisy around the subphrenic region is most difficult to diagnose. It is hard to say what will be the outcome. Only time will tell. If there is any bilious trouble, the pain may be referred to the liver, and I have waited for two or three days before I was absolutely certain that it was a case of pleurisy above the diaphragm, and not a case of liver disease. Of course, it is possible that Glisson's capsule was first involved, then the diaphragm and then the pleura.

In my opinion it is fortunate for the man with a tuberculosis to have a pleurisy. The pleurisy may be a conservative process. If it is the dry variety, the most common, it perhaps splints the lung and keeps it down. I have watched these cases for years without noting any change for the worse; there was little pain, only a little crepitant rale; the lung was bound down. At the postmortem you can pull off a large strip that was bound down.

Rheumatism is a frequent cause of pleurisy. One of the strongest arguments we possess that rheumatism is not a humoral or joint trouble, but an infection, is that the disease frequently shows itself about the lung. Happy man he who has it appear there rather than on the serous surface of the heart, the endocardium or pericardium.

With regard to the treatment, there are two points that I want to emphasize. When there is much pain, strap the side. It is the best treatment and it is easy to do, especially in a child. In other cases where the pain is continuous, where with every little change in the weather they have a pain, I know of nothing to equal the actual cautery. Most people are afraid of the cautery. Then blister. It does an immense amount of good, even in dry pleurisy; it does much good in the wet pleurisy at the end of the treatment.

The second point I wish to emphasize is the use of salicylate of soda. If I had to select one remedy for pleurisy, irrespective of the cause, I would take the salicyl compounds. Give large doses. I use salicin. If given properly it does not produce any depression nor upset the stomach.

When the patient is run down and debilitated, give the old-fashioned iodid of iron. Do not be in too big a hurry to tap. I tap few of these cases. I have not tapped a man for several years. Watch that fluid. Watch that fluid; you can see it come way up to the clavicle. If the patient is depressed, give him something to tone him up. Keep him on a dry diet, and if this does not help, aspirate. I never saw a bad effect but twice, and then it was the fault of the operator. The man who takes out a piece of one rib, or only one rib, makes a grievous mistake. I am not a surgeon, but I have had these cases operated on time and again, and I have had to have a second operation.

performed. If you are going to operate for empyema, you must operate; do not aspirate. Do not take out only one rib; take two at least, or sections of three or four ribs.

Then another thing. I have seen two, three and four varieties of pleurisy in one case; dry in one, wet in another and pus in a third. Be sure and break down all these pockets and empty them, or you must do the operation over again. Those are mistakes made very often, and if you are on your guard, you will save yourself and your patient much trouble and suffering. If you must operate, operate so that you will not have to operate again.

* * * *

Dr. Wm. A. Jenkins, Louisville: I desire to make only one point. I understood the essayist to say that the presence of fluid in pleurisy could be detected by succussion. There is only one circumstance which renders it possible to get succussion, and that is the presence of a puncture over the lung cite, because the presence of air is absolutely necessary. Many men claim the contrary and thus infuse a wrong idea into the student's mind. There is bound to be air present before succussion is of any value, and this is not common in most cases of pleurisy.

* * * *

Dr. Leigh Maupin, Magnolia: This paper is especially interesting to me because during the past year I have had an unusual experience with cases of pleurisy with effusion, and, with the exception of a few things, I endorse all the doctor said.

With regard to incipient pleurisies, which we all have seen, where the patient complains of shortness of breath, but continues at his work all the time, the point I want to talk about is when to aspirate in such cases. I mean these cases of incipient pleurisy that come on slowly, without an acute attack. I have had a number of such cases. Much depends on the physical signs as to when we are to aspirate or to operate. Of course, I always make use of the drugs that have been mentioned for stimulation and absorption, although I have never been able to dissipate the effusion by absorption in people of thirty or forty. In children I have succeeded in doing so, and I have never had to aspirate a child. But, when shall we aspirate?

I recently had a case occurring in a man seventy years of age. I did not expect him to recover. He complained of shortness of breath and pain in the side, and of not feeling well generally. The peculiar cough that is always present in these cases attracted my attention. I examined the man's chest and found a considerable effusion. I attempted to bring about absorption of the fluid, but failed. His temperature went up slowly but steadily, and at about the end of the third week, from the time he began complaining, I aspirated. My experience has taught me that we should

not wait longer than from two to three weeks in such cases to aspirate. If we delay too long the chances of recovery are much less. I am governed by the respiration and temperature more than any other symptoms and rarely ever allow the temperature to get over 102 degrees, as I think the fever has a marked effect on the consistency of the fluid and makes the chance of recovery much more unfavorable.

Another case occurred in a lady about forty-two years old. I aspirated her, and both these cases got along very nicely. In cases of this kind, where the patient has been up and around all the time, I advise them, after aspiration, not to lie in bed, but to remain on their feet and take deep respiration exercises and physical exercise. I find that these exercises restore and expand the collapsed lung and their recovery is much more certain and rapid.

* * * *

Dr. Jackson, closing the discussion: Dr. Marvin said that when making a rib resection for empyema, we should always resect more than one rib. It seems to me that that would depend entirely on the nature of the case. In the case I reported, just as beneficial results could have been obtained without resecting any ribs at all. All I did was to give the patient temporary relief. In these cases of advanced pulmonary tuberculosis we cannot expect to do much in the way of a permanent cure, no matter whether we resect two, or three, or more ribs.

I have been misunderstood with regard to the succussion symptom. You may get it, and when you do, it is pathognomonic. But it is by no means certain that you can get succussion even when there is a great deal of fluid present.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.—(See Collier's Weekly, Nov. 4, 1905.)

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TUBERCULOSIS.

At the present writing a bill is pending before the Kentucky Legislature providing for the establishment of a State Sanatorium for Tuberculosis. This bill has the endorsement of Governor Beckham, was indeed recommended in his message to the Legislature, and seemingly has a good prospect of being passed and becoming a law. It will probably resolve itself into a question of budget. With a large additional appropriation for the new Capitol and many other heavy expenses, it is possible that our solons may not see their way clear to providing the funds necessary for such an establishment. Fifty thousand dollars is the appropriation asked, and certainly this amount is modest enough when we consider the necessities of such an institution.

Louisville and Lexington have each under way a movement for the establishment of local sanatoria. These of course are in no way antagonistic to the State institution, but would supplement its usefulness and prevent it from being overcrowded by an excessive number of patients from only a few points in the State. The larger cities should unquestionably provide their own institutions for this disease, just as they now provide them for the eruptive diseases.

As is well recognized on all sides, a campaign of education is needed to bring our people to a realization of the danger from this source which threatens them on the one hand, and on the other the means which, being well understood, lie close at hand for deliverance. A few months ago Dr. Knoff came to Kentucky and delivered addresses at Louisville and Lexington. Those who heard him speak had these two points impressed upon them in clear, simple and forceful way never to be forgotten.

New York and Boston have each recently had a tuberculosis exhibit for this same purpose. These exhibitions have accomplished

great good in the way of disseminating information about the disease, and will undoubtedly be repeated in most of the larger cities of the country.

In Boston especially great interest was manifested. During the eleven days of the exhibition there was an attendance of 25,953, or an average daily attendance of 2359. A feature of the exhibition was a series of special meetings at which various physicians and laymen, familiar with the various phases of the tuberculosis problem, made addresses. The Boston Medical and Surgical Journal of January 18th, the "Tuberculosis Number," contains a number of these addresses, a short review of which may be profitable and interesting.

Dr. E. H. Bradford describes the open air treatment of convalescent cases of bone tuberculosis at the Wellsley Convalescent Home. A well arranged country house is provided, and a large number of the children are also placed in shacks or huts with free access to the outer air. At a small increase of expense almost any number of tuberculous children could be taken care of in this way. The results of the open air treatment furnished these delicate children have been most gratifying and remarkable. This is indicated by the fact that nearly all of these cases transferred from the hospital wards to the shacks of the Convalescent Home immediately began at once to take on weight, many at the rate of a pound a week.

These results are comparable to those of observers elsewhere in the treatment of pulmonary tuberculosis, and are the more striking that these children were removed to the shack from the wards of well appointed hospitals, where they had had the best of care and food in good surroundings.

The belief in the minds of many that because of an underlying constitutional vice, children who have recovered from surgical forms of tuberculosis are doomed to a life of disability, poor health and early death, is ill founded.

Bradford details thirty cases of complete recovery, the individuals being in perfect health many years after recovering from such tuberculous disease.

The open air treatment referred to here does not mean a few hours a day passed in the open air, but means free access of the open air in all of the twenty-four hours. "To Santa Claus in his mid-night raids it must be apparent that the best possible Christmas gift to the majority would be a large hole in the roof."

Dr. Theobald Smith discusses the relation between human and bovine tuberculosis, and its relation to the inmates of public institu-

tions. When the infectious nature of tuberculosis was discovered, the natural inference was that pathogenic power towards one of the higher animals means danger to all others. Later observations can not be said to have fully demonstrated the truth of this. Thus only one of the infectious diseases of man—the bubonic plague—is shared by one of the lower animals, the rat. The plague is known to spread freely from rat to rat; from rat to man, and less freely from man to man. While there are some other infections which may be transmitted from animals to man, such transference is exceptional and then man does not transmit these to his fellow man because the necessary machinery for transmission is lacking.

After the discovery of the tubercle bacillus by Robert Koch in 1882 it was generally conceded that human and animal tuberculosis were one and the same disease, and inter-communicable. In 1897 Dr. Smith was led to study more in detail cultures of tubercle bacilli derived from men and animals. It was a tedious process, but in 1898 he felt justified in establishing at least two races of the bacilli, a bovine and a human type. At the same time he contended that these results contradicted the extreme fear with which bovine tuberculosis was being regarded, and that it did not justify the very heavy expenditure of public funds in the destruction of tuberculin reacting animals, and the condemnation by law of the flesh of all animals even mildly infected. Dr. Smith is of the opinion that public moneys can be much more advantageously expended in fighting the spread of tuberculosis from man to man, rather than in destroying tuberculous cattle from whom the contagion to man is at least exceptional.

In 1901 Robert Koch placed himself squarely across the path marked out by sanitarians since 1882, maintaining not only the racial distinction of bovine tuberculosis, but going so far as to regard it as an entirely negligible quantity in our struggle against the human disease. He doubtless went too far in this latter position, but the discussion set up was salutary and gave an enormous impetus to the anti-tuberculosis movement of to-day.

As a result of Koch's statements in 1901 the English government appointed a new commission to consider the question. Its report seemingly will agree with that of the first Royal commission, that the bovine and human forms of the disease are identical (and hence inter-communicable).

The German Commission, on the contrary, has taken about the same view of the matter as that held by Smith in 1898, viz., that there are two types of mammalian tubercle bacilli, a

bovine and a human type, and that occasionally the bovine type is found in cases of human tuberculosis.

When found in the human, the bovine bacillus has practically always been found in disease of the intestinal tract, and almost exclusively in children under ten years of age. Therefore, in institutions caring for children the source of the milk should receive careful attention, and herds belonging to such institutions should be free of any trace of disease. In institutions harboring adults, there is much less cause for anxiety, and if all cows of reduced vitality or suspicious udders are eliminated, the danger of infection may be regarded as exceedingly small.

In view of these data careful inspection of dairy herds cannot be dispensed with, and such inspections should be made necessary functions of state and local boards of health, in order that any advanced cases may be detected, removed and destroyed. More than this cannot be demanded at the present time in the interest of public health.

Dr. O. F. Rogers and Dr. Owen Copp discuss the problem of treatment of the tuberculous insane. The depressed physical condition of many of these patients, the necessary result of the confinement or semi-confinement in which they must be kept, renders them peculiarly liable to such diseases as tuberculosis. On the other hand, the inability to control the habits renders the tuberculous insane exceedingly dangerous to those with whom they come in contact. The necessity for special arrangements for segregation is therefore most imperative, and yet little provision of this kind has, up to the present time, been made in the Insane Asylums of this country.

The problem is a complex one for the reason that the mental condition of many of these patients is such that they are not suitable for tent or shack life, but must be kept in specially constructed wards where proper control can be exercised.

Dr. John H. Nichols discusses the question as to whether nurses caring for cases of tuberculosis are in danger of contracting the disease, and what special instructions should be given them. His remarks are intended to apply rather to terminal cases of tuberculosis, which, on account of their weakened and hopeless condition, must be treated in wards rather than to the incipient and hopeful cases suitable for tent and shack treatment.

Nurses in charge of such cases must have impressed upon them the nature of the infection to which they are exposed. They must be taught that without the tubercle bacillus such infection can not exist—that the bacillus abounds in the expectorations and exhalations

of consumptive patients, and that, if permitted to become dry and be ground into dust, they float about the room and are inhaled with the air into the lungs of the occupants of such rooms. Then, if the soil found is suitable, a tuberculous process is started in the lungs of the new victim. This *suitable soil* is found in persons of reduced vitality, whether from insufficient or improper food, overwork, or the presence of any other disease.

There is great danger in the dust found in the room of a consumptive patient, and all such dust must be carefully removed with moist cloths which are afterwards rinsed and permitted to stand in pails containing an efficient germ-destroying solution.

The nurse should not permit the patient to breathe in her face, and should stand well out of range when the patient speaks or coughs.

The sputa should be received in paper receptacles or handkerchiefs, and these should be burned every day, before drying out occurs.

If these rules be strictly followed, and if in addition overcrowding in wards is avoided, and scrupulous cleanliness maintained, windows kept open for a maximum of fresh air and sunshine, little danger exists of nurses, attendants or physicians contracting the disease. In fourteen years of hospital experience during which more than five thousand cases of tuberculosis have been handled, mostly in the advanced stages of the disease, the writer has known of but one case where an attendant, nurse or physician undoubtedly contracted the disease in the wards, or in the discharge of duties.

For five years the home where the nurses sleep and eat has been situated a half mile from the hospital, a most desirable arrangement and a great safeguard.

Dr. David Townsend describes a *Day Sanatorium for Consumptives* established last summer in Boston by the Association for the Relief and Control of Tuberculosis. Such camps have been installed heretofore abroad, notably in Berlin, but this is the pioneer in this country. The camp was partly for day service, that is the patients came in the morning and went home at night. The spot chosen was in an orchard, a part of an old estate in the suburbs of Boston, about three miles from the State House, 1 1-4 acres in extent. The patients came each morning by the electric cars to within 3-4 of a mile of the camp, and were then transported by park wagon to the camp. Cases at all stages were received, the only point being that they should be able to walk down the hill back to the cars in the evening.

The equipment comprised a large mess tent, used as a dining-room and also as a shelter in

stormy weather; three small wall tents 10x12, and a "lean-to" which was used as a kitchen.

The camp was opened July 6th, 1905, and closed October 21st. Its aim was to accomplish a maximum good at a minimum of expense, its chief object being the education of the patient in the care of himself and his sputum to prevent spread of the disease. The principal rule was that under no circumstances should a patient expectorate on the ground; disregard of this meant reprimand; persistence, dismissal. Only on two occasions was it necessary to reprimand a patient for infringement of this rule. On arrival each patient was furnished with a small brown paper bag and squares of Japanese handkerchiefs for his sputum. At night the sputum bags were placed in the incinerator and burned. The women set the tables and cleared them after dinner; the men wiped the dishes. Good food was served, books, magazines and daily papers were furnished, as well as games.

There were 128 cases at the camp during the summer, varying in ages from 8 to 64 years and representing nearly all nations. The greatest attendance in one day was 54. Of 78 cases which attended the camp for three weeks or more, 59 showed a gain in weight of from 1-8 to 20 1-8 pounds; 19 lost from 1-2 to 9 pounds. The maximum gain was 20 1-2 pounds in 17 weeks. About 1-3 showed some improvement in lung condition. The greatest good accomplished was in the education of the patients in the proper way to care for themselves and their sputa. On returning home each one of these patients became in some sense a focus for the dissemination of proper information regarding the nature of the disease, the danger of the infection of others, and the proper means of avoiding such dissemination.

In view of the fact that the ultimate triumph over this disease can only come after the public is brought to a proper knowledge and appreciation of the above facts, these day schools of tuberculosis should be begun in all the cities, not to take the place of properly equipped sanatoria, but to supplement the home treatment, or the hospital out-patient treatment of many who for years to come cannot be cared for in sanatoria.

YELLOW FEVER IN THE CANAL ZONE.

Dr. W. C. Gorgas (Journal A. M. A. February 3rd, 1906) gives an interesting account of what has been done in the way of controlling and exterminating yellow fever in the canal zone.

Under the French occupation there was no

accurate way of knowing how many cases of the fever occurred or its mortality. That its ravages were fearful can be inferred from the following:

In one day there were lost three of the medical staff, and in the same month nine of the medical staff perished. Of the 36 sisters brought over as nurses, 24 died of yellow fever. Of 18 young French engineers brought over in one vessel, all but one died within the month. This was twenty years ago, when probably we could have done no better. The result of modern treatment by isolation under wire netting and mosquito bars, with the industrious use of fumigation (sulphur and pyrethrum), combined with the screening of cisterns and destruction of the breeding places of the stegomyia, has been so practically abolish yellow fever from the zone. In June, 1905, there were 67 cases, in July 40, in August 27, in September 7, in October 3 cases, and none in November and December! Certainly this is a most remarkable record, especially in view of the fact that in Panama, by count, about 90 per cent. of the mosquitoes are stegomyia, while in Cuba only about 5 per cent. are of this variety.

Dr. Gorgas and Dr. Carter, with their wives and children, live near the hospital in old French quarters, where hundreds of victims of yellow fever formerly perished, with no more thought of danger than if they were living on a fashionable street in a metropolitan city in the United States.

This means the apparent elimination of yellow fever from the canal zone; but this result cannot be assured until the time of the full life of a female stegomyia mosquito has been passed since the last case. In Havana it was found that some mosquitoes had a life span of at least 150 days. When such elimination is complete, the problem then will resolve itself into preventing the importation of any cases of yellow fever from other points. As the natives themselves are more or less immune, this part of the problem will be much simplified.

While the presence of yellow fever and a demonstration of our ability to abolish it, had a great moral effect on the force of men employed on the canal it was, after all, malaria which has always done more than any other disease to disable the working force.

In October there were 22,000 men on the pay roll; of this number 21 per thousand were sick daily, "Which is about the rate which might be expected if the canal were being built between Baltimore and Philadelphia."

The recountal of such triumphs as this should make the breast of every doctor swell with pride. It does not fall to the lot of all

of us to do great and epoch-making things; but if we have an intelligent understanding of what others have done, and could do over again the same things if we were placed in similar circumstances, we can feel that the greatest part of duty has been done. It is one of the glories of the medical profession that the work of one becomes the heritage of all, to be had for only the labor of reading and understanding.

DELAYED CHLOROFORM POISONING.

"When chloroform kills, it kills on the table; when ether kills, it kills days afterward in the bed."

The above is an expression which has been used a great many times, and like many similar sayings, it has been proven to be absolutely untrue.

Bevan and Favill (Journal A. M. A., 1905, pp. 691 and 754) last year called attention to the "acid intoxication" which follows the exhibition of chloroform, the result of degenerative changes produced in certain organs of the body. H. Gideon Wells (Journal A. M. A., 1906, p 341) presents the results of some studies as to the exact nature of these changes. He states that the "Condition rarely results from ether narcosis, but follows chloroform narcosis in probably no insignificant proportion, if we include all of the non-fatal inoxications following operations under chloroform.

A period of 10 to 150 hours elapses between the time of anesthesia and the appearance of the symptoms, generally between twenty-four and forty-eight hours. The symptoms are those of a profound toxemia, and in the urine are found organic acids and sometimes amido acids (leucin and tyrosin). At autopsy the anatomical changes are striking, most prominent being degenerative changes in the liver, these changes consisting of vacuolization, swelling, fatty changes within the cells, often much necrosis with evidences of absorption of the necrotic cells. The other parenchymatous organs share in these changes to varying degree, the kidneys usually standing next to the liver in amount of degeneration."

Recent studies of the chemistry and biology of the cell throw some light on the pathological changes brought about by chloroform and some other poisons.

"Every tissue cell contains a number of enzymes, by the action of which a large proportion of its metabolic processes are carried on. There are enzymes that bring about oxidations; enzymes that maintain the equilibrium between glycogen and sugar; lipase which splits fats and probably also synthesizes them, and also ferments which split up proteids much

as trypsin does, although with certain minor differences. The above enzymes we know are in the cells; there are others known that are not so thoroughly studied, and probably there are still many others that are yet to be distinguished. The sum of the action of these enzymes, with perhaps the addition of certain simple chemical reactions between the substances they produce, constitutes the metabolic activity of the cell. If any one set of these actions is prevented the metabolic activity is greatly altered, perhaps with serious consequences.

"We know, for example, that when the cell does not receive food, and therefore can not meet its splitting processes by synthesis of new tissue elements, the result is a splitting of the cell structure by its own ferments, e. g., bacteria placed in distilled water undergo self-digestion, or autolysis. Similarly, if we stop in any other way the synthetic processes and still leave the proteid-splitting enzymes in an active condition, these enzymes will digest the cells. Hence if we were to poison the cells with a substance that stopped all the other life processes except the autolytic action, the cell corpses would be disintegrated by their own enzymes.

"Now, chloroform happens to be *par excellence*, just such a selective poison. It is a protoplasmic poison, if we may use the term, which does not to any extent impede the action of the autolytic enzymes. If we add chloroform to a culture of bacteria the bacterial cells are killed, in that they are unable to multiply or to move about or to take up food and grow, but the proteolytic enzymes within them are still active and unimpaired, and these continue their proteid-splitting action. During life this proteolysis is being met constantly by synthesis, so that the changes balance one another; under chloroform the synthesis ceases while the proteolysis goes on, hence the process is all in one direction and the cell digests itself until its structure is destroyed and its proteids have been broken up into simple nitrogenous substances, such as leucin, tyrosin and ammonia compounds. Just the same thing happens if, instead of bacteria, we have under chloroform a piece of liver tissue, or an emulsion of liver cells; synthesis is impossible because there is no nutriment brought to the cells, and proteolysis goes on, the liver cell proteids being digested into simple soluble substances."

The above quotations are made at length from Dr. Wells' article because we believe the matter to be of extreme interest and importance.

Children seem to be more often affected than adults, which again if not in accord with the formerly accepted idea that chloroform is a

particularly safe anaesthetic in children. It is in accord, however, with Schlesinger's observation that the autolytic power of the liver is greatest in young children.

It is interesting to note that similar organic atrophies, especially of the liver, have been observed following the scopolamine-morphine method of narcosis. Orth's report on one of Israel's cases stated that the degenerated condition of the liver and other organs was quite similar to that following acute phosphorus poisoning.

Wells summarized his article as follows:

Chloroform poisoning, in common with a number of closely-related conditions characterized by intoxication and marked changes in the liver (acute yellow atrophy, phosphorus poisoning, certain septicemias, and some cases of puerperal eclampsia) probably all depend on the effect on the liver of poisons that destroy the synthetic functions of the liver cells without destroying their autolytic ferments. Autolysis of the liver cells follows, with resulting alterations in the liver structure, and the appearance of products of autolysis (amido acids and various other organic acids) in the blood and urine. It is probable that in chloroform and in phosphorus poisoning, at least, it is the oxidizing enzymes that are particularly involved, accounting for the marked fatty changes that are present in these conditions.

CARD FROM THE K. S. M. A. COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

The Committee on Legislation and Public Policy announce to the profession that, in accordance with the instructions of the House of Delegates, at the last annual meeting of the State Association, they have introduced a bill into the General Assembly providing for a non-partisan State Board of Control to have full authority over the three insane hospitals and the feeble-minded institute. This bill aims at the elimination of political control of these institutions, and the establishment of a scientific standard of care and treatment for the inmates that would place them abreast of the best similar institutions of the country. Also, according to instructions, the Committee is supporting the bill for a State Sanatorium for Tuberculosis introduced by The Kentucky Association for the Prevention of Tuberculosis. Every member of the profession throughout the State is urged to immediately write his Senator and Representative, urging the passage of the measure.

GEO. P. SPRAGUE, Lexington.

W. W. RICHMOND, Clinton.

BEN L. BRUNER, Louisville.

ORGANIZATION WORK IN KENTUCKY.

Cynthiana, Ky., February 1, 1906.

A meeting having been previously scheduled for the 25th of January at Carlisle, Nicholas County, I went over on that day to assist in reorganizing the Nicholas County Medical Society. After having spent the forenoon in visiting the physicians of the city and calling up all in the county that I could reach by phone, I was invited by Dr. Tilton, the nestor of the profession at Carlisle, to his home, where I was hospitably entertained not only by a "feast of reason and a flow of soul," but also substantially by an excellent course dinner, after which we repaired to the Masonic Hall, the place of meeting, where I found that fifteen out of the nineteen physicians to whom I had previously written had responded by lending their presence to the occasion.

The meeting was called to order by Dr. Grimes and the following officers were elected for the ensuing year:

President, Dr. J. R. Tilton; Vice-President, Dr. O. S. Kash; Secretary and Treasurer, Dr. G. B. Spencer; Board of Censors, Dr. W. D. Howe, Dr. M. Dills, Dr. H. M. Yancey; Delegate, Dr. O. S. Kash.

There were present at this meeting:—Drs. Tilton, Kash, Dills, Yancey, Howe, J. M. Wells, Durrum, Reynolds, Buntin, McIntire, Campbell, Woolery, Grimes, Fisher and Spencer of Nicholas Co., and Drs. Lapsley, Smith, and Wallingford of Bourbon Co.

Dr. Wallingford of Paris, read a most excellent paper on "Electrolysis," which was discussed by Drs. Smith, Dills and others. Dr. Dills reported a case of double fracture of the femur, which was discussed by all the members present.

On motion a committee was appointed to draft resolutions on the death of Dr. Harry Munger. The Society then adjourned to meet in February.

This is the best prospect for a thoroughly live society that Nicholas County has ever had. I have organized there on several occasions, but I have never witnessed as much enthusiasm and zeal as was manifested at this meeting. The members, each and every one promised to work for the interest of the Society, and the Secretary, Dr. Spencer, announced his intention of doing his duty thoroughly, and with the aid of an efficient Secretary and the promise of hearty co-operation from the members of the Society, good results cannot help but follow and that speedily.

J. E. WELLS,

Councillor for Eighth District.

Owensboro, Ky., Feb. 16. 1906.

Dr. James B. Bullitt,

Secretary State Medical Association.

Dear Doctor:—

In compliance with your request that I report all progress made as Councillor for the Second District, permit me to report a most delightful visit to Morganfield, Union County, on December 6th last. In making this visit I had the pleasure of having as a co-worker, in the cause of organized medicine our distinguished President, Dr. C. Z. Aud who by virtue of former acquaintance knew many of the doctors of this county, and contributed more than his mite to the great success of the meeting. They had a large attendance, from various parts of the county, and enthusiasm was the issue of the hour. They had good papers and discussions, and a most interesting clinic; which, by the way, is a greatly neglected, but important and instructive feature of any medical meeting.

The profession of Union County was so awake to the importance of the meeting, and so desirous of leaving no stone unturned that might add to the success of the occasion, that they prepared and served a most sumptuous banquet, which with the generous welcome accorded the visitors, will make them long remember the occasion.

On December the 19th, I attended the quarterly meeting of my own society, that of Daviess County, in the City Hall at Owensboro, and as usual, they had a most excellent meeting with some thirty-odd members present. It is not with pride, but advisedly, that I say medical affairs are in a better condition here than any other county in the State. The mutual interest that prevails, among the profession here, has created for it a most valuable Association, and the professional zeal of its members, manifested at every meeting, would be a wholesome inspiration to the profession at large, could it be brought under its influence.

On December 30th, I visited by arrangement, the doctors of Caldwell-Lyon Counties at Princeton, where I organized a society of several members to be a part of the State Organization. This territory has some splendid men who could render valuable service to their profession, if they would become interested.

On January 12th, 1906, I met the doctors of Hancock County, about one-third of the physicians of the county being present; and after a talk along the lines of organization, a County Society was organized to affiliate with the State Association. This county had not heretofore been associated with the State Association.

The Crittendon County Medical Society formerly affiliated with the State body but,

owing to a state of apathy among the doctors as individuals, did not renew by payment, its allegiance for the year. As requested by you, I went there on January 19, 1906, meeting the doctors at Marion; and I hope revived the Society to a successful operation. The doctors of this county should shake from their feet the dust of indifference, and arise in their might individually and collectively and create for themselves, that which they are capable, viz: a good society.

Ohio County not having before connected itself with the State Association, was taken from the third district and placed in the second; and on Feb. 3, 1906, I visited Hartford and had a most delightful (to me) conference with the doctors of Hartford who organized and became a part of the State Association and agreed to meet on the 21st of this month, and invite the doctors of its county to come and join the County Society, and be their guests for dinner.

It is my firm conviction, that having a social as well as a working feature of each meeting, greatly tends to increase the interest therein.

The Hopkins County Medical Society not having had a meeting for the past twelve months, I was requested to visit and revive it if possible.

On Feb. 15th, 1906, I met the doctors of Hopkins County in Madisonville, some fifteen in number, and after a free discussion of the benefits to be derived from a Medical Society, they elected officers for the year. I found here some of the best talent in the State, and it is a great pity that the profession is denied its influence; owing to its energies being directed along a personal line. I believe, however, from the interest manifested by those present, which will make active the dormant ability, that we are warranted in the hope that this society has a successful and useful future.

I do not desire to complete this communication without in some way, feebly though it be, of expressing my appreciation of the very kind and courteous treatment extended by the profession at every place I visited.

I have the honor to remain, very truly yours,
D. M. GRIFFITH,

Councillor Second District.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The Cumberland County Medical Society

met in Burkesville, January 24th, 1906, at the Court House, to hold its regular annual election of officers. The meeting was called to order by the President, Dr. A. W. Sharpe, of Kettle. The following members were present:

Drs. H. L. Cartwright, H. D. David, W. C. Keen, L. Oscar Keen, J. H. Myers, R. L. Richardson and A. W. Sharp.

All of the officers were re-elected to serve for the ensuing year, as follows:

President, A. W. Sharp; Vice-President, John G. Talbott; Secretary-Treasurer, R. L. Richardson.

After the transaction of miscellaneous business the Society adjourned to meet February 28th. R. L. RICHARDSON, Sec'ty.

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At a meeting of the Clinton County physicians held in Albany, Ky., on January 17th, 1906, for the purpose of re-organizing the *Clinton County Medical Society*, the following physicians were present:

J. A. Sloan, D. L. Cook, S. F. Stephenson, E. M. Koger and D. C. L. Shelley.

The meeting was called to order by Dr. J. A. Sloan and the purpose of the meeting stated. The following officers were elected for the ensuing year:

President, J. A. Sloan; Vice-President, E. M. Koger; Secretary, D. C. L. Shelley; Treasurer, S. F. Stephenson.

Drs. S. F. Stephenson, D. L. Cook and E. M. Koger were elected censors to serve, in order named, one, two and three years respectively. Upon motion the constitution and by-laws as submitted by the American Medical Association were adopted. The Secretary collected the annual fee of \$2.00 from each member and was instructed to send the same to Dr. James B. Bullitt, Secretary of the Kentucky State Medical Association.

Upon motion the Society adjourned to meet February 3rd, 1906, at 10:00 o'clock A. M.

D. C. L. SHELLEY, Sec'ty.

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The Fayette County Medical Society held its regular monthly meeting in the Public Library on February 16th. The program of the evening was a symposium on "Pulmonary Tuberculosis." Dr. Clark gave us the paper on its treatment, and Dr. Sprague the one on prevention. Dr. T. S. Bullock gave a very interesting talk on the climatic treatment, relating, in this connection, his personal experience in New Mexico and Arizona. Dr. Kinaird was to have read the paper on the diagnosis, but was unable to be present.

The excellent papers on this most important subject aroused a great deal of interest and elicited a very full discussion which was in-

teresting and profitable to every one present.

Dr. W. B. McClure reported an interesting case of hemophilia.

A few days ago the Society unanimously adopted resolutions approving the Johnson bill, to come before the Legislature, and appointed a committee, consisting of Drs. Holloway, Van Meter and Wiley, to draft these resolutions and if this committee saw fit to go to Frankfort and present the resolutions in person, which they did.

The Johnson bill is for the regulation of the patent and proprietary medicines business in the State of Kentucky, and it would be a good plan if every county society in Kentucky would follow the example set by our Society — it might do some good.

W. H. SMITH, Sec'y.

* * * *

The Henry County Medical Society met at New Castle, Ky., Monday, January 29th, 1906. There were present 16 members. Drs. Forrest, Hancock and O. P. Goodwin were admitted to membership.

We had quite a number of clinical cases reported which were followed by discussion from all present. Dr. Lindemann read a paper on "Broncho-pneumonia," and Dr. Dowden read a paper on "Scopolamine Anaesthesia." This was our first meeting of the year and every doctor who was present showed much enthusiasm in Society work. We expect to go to Owensboro next year with the banner report.

JOHN P. NUTTALL, Sec'y.

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Harrodsburg, Ky.

The Mercer County Medical Society met at the Y. M. C. A. rooms Tuesday, January 9th at 2 P. M., with Dr. J. Tom Price, President, in the chair. Minutes of last meeting were read and approved.

First on the program was a paper by Dr. Carroll P. Price on "*Treatment of Syphilis.*"

After the unmistakable diagnosis of syphilis, stress was laid on the importance of giving mercury by the hypodermic or intra-muscular injection. Dr. Price also mentioned the results of giving mercury per mouth, and the close care with which mercurial ptyalism should be watched for. Quick silver or metallic mercury and lanolin emulsified in liquid albolene constitutes the medicine injected, given in doses of from one to three minims according to symptoms and cumulative effect obtained. The importance of watching the digestive system was emphasized. If ptyalism be induced cessation of treatment and elimination of mercury by hot baths, etc., is the treatment.

Dr. Price mentioned three cases treated by this method under his care with good results.

DISCUSSION.

Dr. T. O. Meredith uses mixed treatment of potassium iodide and mercury and also mercury alone, as the protiodide in 1-4 grain doses. He cauterizes some and impresses patient as to hygiene and importance of the disease. Dr. Meredith also spoke of congenital syphilis, and treats this by giving gray powder or calomel in small doses every three hours.

Dr. A. D. Price insists on treatment by mouth and injection, and is pleased with the results of same. Dr. Price does not believe in barring syphilitics in matrimonial matters where good care and judgment are used by the physician. Dr. Price gives the bichloride in small doses in solution in congenital syphilis and results are satisfactory.

Dr. C. B. Van Arsdall spoke of the combination of potassium iodide ten grains with the bichloride 1-16 grain and continued for three years.

Dr. W. D. Powell spoke of the importance in all cases of waiting for secondary symptoms before beginning treatment.

Dr. J. Tom Price reported three cases of abrasion in which syphilis was suspected, but in waiting for secondary symptoms all proved to be non-syphilitic.

Dr. C. P. Price likes the sterile gauze dressing for the initial lesion and preventing irritation.

Dr. C. B. Van Arsdall reported a case of empyema of the gall bladder in a female of 36 years of age.

Dr. A. D. Price reported a case of tetanus neonatorum, and spoke of the importance of dressing the umbilical cord.

Dr. T. O. Meredith spoke of ophthalmia neonatorum, and a general discussion arose in which it was the consensus of opinion that the use of a 2 per cent. solution of silver nitrate was good practice in all labor cases.

Adjournment.

W. HORACE WITHERSPOON, Sec'y.

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The Pulaski County Medical Society held its first regular meeting of the year at 7:30 P. M., January 11th, at Somerset, in the offices of Drs. Parker & Parker, the President, J. W. F. Parker, presiding. Owing to the extremely unfavorable weather conditions, our otherwise large attendance was reduced to a small but enthusiastic body.

Upon the formal acceptance of the chair, and in recognition of his election, Dr. Parker read a paper setting forth lofty ideals and being an enjoyable retrospect.

Of the regular program, Dr. J. M. Owens presided in a very able and entertaining manner, "Doctors' Vows for the New Year."

A paper on "Lobar Pneumonia" by Dr. Benj. G. Allen was thorough and practical, and

received full discussion by the Society. Several interesting cases were reported and discussed by members.

A committee was appointed to see to arrangements towards procuring a room or rooms to be fitted up as a permanent home for our Society. S. F. PARKER, Sec'y.

The program of Pulaski county society will be published next month.—Ed.

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The Henderson County Medical Association met in the office of Dr. J. W. Stone, Henderson, Monday evening, February 12th, 1906. A card from the Committee on Public Policy and Legislation of the Kentucky State Medical Association was read, asking the physicians to support the bill providing for a State Board of Control to have full authority over the three insane hospitals and the feeble-minded institute, and the bill providing for a State Sanatorium for Tuberculosis. On motion of Dr. Dixon it was moved and seconded that each member and the Secretary of the Society write to the members of the Legislature from Henderson County asking their support of the bills.

Dr. J. W. Stone, read an excellent paper on "Gall Stones Medically Considered," taking the position that gall stones can be and are removed by medical treatment.

Dr. W. A. Quinn read a well-prepared paper on "Gall Stones Surgically Treated," which was well received.

The two papers were jointly discussed by Drs. Dixon, Edwards, Moseley and Hancock, and closed by the essayists.

The Society adjourned to meet February 26th, with Dr. Dixon.

Following is the outline of work for Henderson County Medical Society, 1906:

January 8, "Ametropia and Its Correction"—Dunn,

JANUARY 22—THE LIVER.

- 12 minutes—1. "Catarrhal Jaundice," Bethel.
- 12 minutes—2. "Other forms of Jaundice," Busby.
- 12 minutes—3. "Icterus Neonitorum," Forwood.
- 12 minutes—4. "Jaundice From Stenosis of Ducts," Edwards.
- 12 minutes—5. "Jaundice From Cancer," Letcher.

FEBRUARY 12—THE LIVER. (Continued.)

- 30 minutes—6. "Gall Stone Medically Considered," Stone.
- 20 minutes—7. "Gall Stone Surgically Treated," Quinn.

FEBRUARY 26—THE LIVER (Continued.)

- 30 minutes—8. "Atrophic Alcoholic Liver," Dixon.
- 30 minutes—9. "Hypertrophic Alcoholic Liver," Moseley.

MARCH 12—THE LIVER (Continued.)

- 15 minutes—10. "The Diseases of Portal Veins," Graham.
- 15 minutes—11. "Acute Inflammation of Liver," Griffin.
- 15 minutes—12. "Abscess of Liver," Wilson.
- 15 minutes—13. "Cancer of Liver," Letcher.

MARCH 26—THE HEART.

- 15 minutes—14. "Adventitious Sounds of the Heart," Dixon.
- 15 minutes—15. "Valvular Abnormalities," Hanna.
- 15 minutes—16. "Hypertrophy," Dunn.
- 15 minutes—17. "Dilatation," Moss.

APRIL 9—THE HEART. (Continued.)

- 12 minutes—18. "Myocarditis," Casper.
- 12 minutes—19. "Degeneration," Ligon.
- 12 minutes—20. "Aneurism," Moseley.
- 12 minutes—21. "Surgery of," Graham.
- 12 minutes—22. "Minor Affections," Wilson.

APRIL 23—THE STOMACH.

- 12 minutes—23. "Examination of Gastric Functions," Orf.
- 12 minutes—24. "Dilatation of Stomach," Stone.
- 12 minutes—25. "Inflammation Diseases of," Royster.
- 12 minutes—26. "Chronic Gastritis," Bethel.
- 12 minutes—27. "Hematemesis," Forwood.

MAY 14—THE STOMACH. (Continued.)

- 20 minutes—28. "Operative Treatment of Ulcer," Moss.
- 20 minutes—29. "Cancer," Letcher.
- 20 minutes—30. "Surgery of," Quinn.

MAY 28—NEUROSES OF STOMACH.

- 15 minutes—31. "Nervous Dyspepsia," Royster.
- 15 minutes—32. "Neuroses of Secretions of Stomach," Wilson.
- 15 minutes—33. "Neuroses of Motility of Stomach," Edwards.
- 15 minutes—34. "Neuroses of Sensation of Stomach," Sigler.

JUNE 11—DISEASES OF THE INTESTINES.

[Joint County Meeting Special announcement with essayist later.]

- 30 minutes—35. "Diarrhoeas of Children."
 30 minutes—36. "Dysentery."
 30 minutes—37. "Surgical Anatomy of Intestines."
 30 minutes—38. "Intestinal Ulcers."
 30 minutes—39. "Appendicitis," Quinn.
 30 minutes—40. "Intestinal Obstructions."
 30 minutes—41. "Habitual Constipation," Hancock.
 30 minutes—42. "Neuroses of the Intestines."
 30 minutes—43. "Cancer of the Intestines," Letcher.
 30 minutes—44. "Treatment Other Than With Drugs."

JUNE 25—TYPHOID FEVER.

- 12 minutes—45. "Primary Pathological Changes," Moss.
 12 minutes—46. "Lesions Due to Long Fever and Secondary Infections," Cooper, J. W.
 12 minutes—47. "Common Sources of Infection and Cause," Griffin.
 12 minutes—48. "Clinical History," Moseley.
 12 minutes—49. "Treatment," Negley.

SEPTEMBER 10—OBSTETRICS.

- 10 minutes—50. "Physiology of Female Genetal Organs," Ligon.
 10 minutes—51. "Physiology of Pregnancy," Norment.
 10 minutes—52. "Disease of Contents of Pregnant Uterus," Floyd.
 10 minutes—53. "Ophthalmia Neonitorium," Johnson, C. H.
 10 minutes—54. "Interruptions of Pregnancy," Busby.
 10 minutes—55. "Ectopic Pregnancy," Dixon.

SEPTEMBER 24 OBSTETRICS. (*Continued.*)

- 10 minutes—56. Septicemia, Ort.
 10 minutes—57. Abnormal Presentations, Bethel.
 10 minutes—58. Eclamsia, Stone.
 10 minutes—59. Malformation, Deformities, Anomalies, Moseley.
 10 minutes—60. Hemorrhage, Edwards.
 10 minutes—61. Force Deliveries, Hancock.

OCTOBER 8—GYNECOLOGY.

- 20 minutes—62. Malposition of Uterus, Powell.
 20 minutes—63. Dysmenorrhoea, Ligon.
 20 minutes—64. Endometritis, Griffin.

OCTOBER...GYNECOLOGY. (*Continued.*)

- 12 minutes—65. The menopause, Forwood.
 12 minutes—66. Cancer of Uterus, Letcher.

- 12 minutes—67. Diseases of Ovaries and Tubes, Dixon.
 12 minutes—68. Tumors, Stone.
 12 minutes—69. Pelvic Cellulitis, Quinn.

NOVEMBER 12—THE LUNGS.

- 10 minutes—70. Circulatory Disturbances of Lungs, Casper.
 10 minutes—71. Emphysema, Edwards.
 10 minutes—72. Atelectesis, Moseley.
 10 minutes—73. Abscess, Graham.
 20 minutes—74. Pneumonia, Hancock.
 10 minutes—75. Treatment of, Bethel.

NOVEMBER 26—THE LUNGS. (*Continued.*)

- 10 minutes—76. Bacteriology of Tuberculosis, Orf.
 10 minutes—77. Transmission of Tuberculosis, Busby.
 10 minutes—78. Acute Miliary Tuberculosis, Wilson.
 10 minutes—79. Chronic Miliary Tuberculosis, Royster.
 10 minutes—80. Hygienic Tuberculosis, Ligon.
 10 minutes—81. Mortality Tuberculosis, Negley.
 10 minutes—82. Surgery, Stone.
 10 minutes—83. Climatic Treatment, Dixon.

DECEMBER 10—ANNUAL MEETING.

DECEMBER 27—ANNUAL BANQUET.

SILAS GRIFFIN, Sec'y.

* * * *

The physicians of Rowan County held a meeting during January at the office of Dr. J. Wilson, at Morehead, for the purpose of organizing a medical society to be known as the *Rowan County Medical Society*. After adopting the Constitution and By-laws for County Societies, as prepared by the American Medical Association, the following officers were elected for the ensuing year:

President, A. L. Blair; Vice-President and Secretary, H. S. Gilmore; Treasurer, J. Wilson.

Drs. J. Wilson, A. L. Blair and H. S. Gilmore were elected censors.

On a motion made by Dr. Wilson, it was moved, seconded and carried that the Society meet the second Saturday in each month at 2 o'clock P. M.

There be no other business the Society adjourned to meet the second Saturday in February at the office of Dr. A. L. Blair.

H. S. GILMORE, Sec'y.

Franklin, Ky.

The Simpson County Medical Society met in regular monthly session in the County Court-room on Tuesday, February 6th, at 10:30 A. M., with the largest attendance in the history of the Society. Several interesting cases were reported, others presented and all were discussed at length by the members present. A very interesting paper on "Acute Articular Rheumatism," by Dr. W. London, was read, in his enforced absence, by Dr. M. M. Moss and discussed by the majority of those present, after which the Society adjourned to meet again on Tuesday, March 6th.

After the adjournment of the Society Dr. W. A. Guthrie tendered the physicians of the county a magnificent banquet at the Keystone Hotel. A large majority of the physicians of the county were present, and good will and fellowship were present in abundance.

"The Franklin Academy of Medicine" has been organized by the physicians of the city and county and meets weekly. The officers elected are as follows:

President, W. A. Guthrie; Vice-President, W. L. Gossett; Secretary, J. G. Gray.

The subject now being discussed and studied is "Embryology."

G. R. JONES, Sec'y.

KENTUCKY NOTES.

Dr. J. T. Windell announces the removal of his office to his new office building at 715 West Jefferson Street, Louisville.

* * * *

Dr. D. T. Smith of Louisville, for many years lecturer on Medical Jurisprudence at the University of Louisville, announces that he has wholly withdrawn from medical practice, and is devoting his attention entirely to the practice of law.

* * * *

Dr. C. Z. Aud, President of the Kentucky State Medical Association, has appointed a committee consisting of J. N. McCormack, T. D. Finck and John J. Moren to confer with a committee of the Editors' Association of Kentucky, having for its object the elimination of offensive advertisements from the newspapers.

* * * *

Dr. James M. Holloway died at his home in Louisville on November 13th, after a brief illness of a week. Despite his advanced age and the infirmities of the past few years, Dr. Holloway kept resolutely along his way, setting an example of fortitude, industry and cheerfulness.

His associates in the profession in Louisville, a host of his students scattered all over the Southern country, and a devoted clientele all mourn his death.

A POCKET CASE FREE.

Great interest is manifested by the profession just now, and rightly, in the nostrum evil—the practice of promoting secret, ready-made prescriptions for the doctor to use as the manufacturer advises, all of which has a distinct degenerative effect upon the profession as a scientific body of thinking men. The Abbott Alkaloidal Co., always alive to the best interests of the physician and obviating, in their idea, any excuse for all this, offer to the profession standard active principles which the doctor can apply, singly or in combination, at his own discretion—dispensing or prescribing as he may prefer.

To any practicing physician who will write asking for it, and mentioning this journal, they will send, free of charge, a neat pocket case containing six vials of the essential (most-used) active principles—the smallest and neatest emergency pocket case ever made—just fits the fob-pocket and but little larger than your watch. See their ad. Hundreds of positive doses for the asking, and a postal card will do it.

BELLEVUE HOSPITAL'S FAMOUS
WARD 32.

In the last nine years there have been 51,000 alcoholic patients at Bellevue Hospital, not counting the repeaters. Of this number, 66 per cent. were between thirty and forty-nine years of age. A series of 125 cases has been studied, showing that as a rule male drunkards live longer than female. Seventy-five per cent. of all chronic alcoholics have fatty degeneration of the liver. Many have brown atrophy of the heart. The kidneys are never normal. Fifty per cent. of the drunkards have gastritis. By the coating of the tongue and the character of the tremor the length of a spree can be accurately determined. The drunkard often "sees things," but rarely has his sense of smell impaired. Patients who drink absinthe are particularly liable to convulsions.—New York Medical Journal, July 16, 1904.

TOBACCO IN INTESTINAL ATONY.

Torresi, of Urbisaglia, according to *Semaine medicale* for May 11, 1904, finds that strong doses of infusion of tobacco have no drawbacks when used as enemata in intestinal atony or occlusion. He uses 15 to 30 grammes, or one-half to one ounce, of the leaves to a quart of water, the latter dose successfully in a case of postoperative intestinal paralysis. In 7 cases, Torresi had 5 successful results, the remaining 2 being in patients absolutely moribund.

KENTUCKY MEDICAL JOURNAL.

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NO. 11.

ADDRESS OF J. W. F. PARKER, M. D.,
PRESIDENT OF THE PULASKI
COUNTY MEDICAL SOCIETY,
JANUARY 12, 1906.

Gentlemen of the Society:—With cordial salutation I bid you a "Happy New Year."

In my momentary absence from the meeting in December, the last one of 1905, the Society designated me to be President of the organization for the ensuing annual term.

I trust it will not now be thought too late for me to acknowledge, becomingly, my obligations to the Society, and to express, in earnest though simple terms, my appreciation of your consideration.

If the proud occasion should inspire me to extend some remarks a theme seemingly appropriate would be, "*The Medical Profession, A Fraternity per se.*"

I assume that every member of our profession, educated, graduated and prepared to practice, and licensed to do so should feel that he is under bond, as solemn as an oath, as sacred as a pledge, as fraternal as a lodge; and that membership here too should be adopted in confirmation of his adherence, as a promise of higher attainments and the liberal dissemination of knowledge and experience, appreciating, with all, the social enjoyment. A retrospect of my time and experience in the profession impresses me with these principles.

At the middle of the last century I began. When I stopped in the old town of Somerset, there was not a graduate of medicine in the large county of Pulaski; nor had there been for a decade,—since the death of Dr. John A. Caldwell—not a practitioner who ever was in a medical school.

Dr. Caldwell, whom I have mentioned, and whose memory I believe you will, when you know his history, join me in honoring, was a native of Boyle County. He graduated at Transylvania in 1825. Here is his diploma, dated the year and the very month in which I was born. It is a cherished heirloom in my office. He came to Somerset and practiced medicine and surgery, and earned and secured a reputation in a dozen years of professional work; but in an epidemic of dysentery, when just at his prime; with a splendid physique, he sacrificed his life in the discharge of professional duties. At the importunate call of suf-

fering patrons he left his bed too early, relapsed and died. His grave, simply marked, is one of the first made in the now beautiful and much crowded cemetery of the city. When I was beginning my career at this place his praise was in the mouths of many citizens. I heard them talk of important operations he had performed, and of cures attributed to his skill. I knew familiarly a resident whose leg he had amputated in the thigh, (mutilated forms were not often seen then). It was curious to hear this man relate his experience and his sensations undergoing the operation—without anaesthesia then of course.

From the time of Dr. Caldwell's death 'till my coming, 10 years, there was not, as I have said, in the county an educated physician. Not a great while, however, after I put up my shingle, another doctor arrived who claimed to have a diploma. He too became fixed by the charming influence of Pulaski women, and yet remains, though not in practice. In the first decade there came also a Doctor Kerns, who was reputed to be from the schools. He settled at Flat-Lick, and married the daughter of a wealthy citizen; but in making a professional visit across a swollen stream, he was drowned.

If you, my fellows of this society, have respected my age, both in life and in the profession, I do not fail to appreciate it. I am grateful for the multiplying of years, for ability to still practice, and especially to join in the filial work of our profession. I have by many escapes survived my contemporaries. But the other day, a Doctor Davis, in interior Kentucky, was found at the foot of a precipice, on his way dead, he and his horse, both by the side of his capsized buggy, with broken heads. I can remember tumbles of my own, in which my escapes were as remarkable as was this fatality.

In the early days of my practice I felt and deplored the want of professional society. I lacked the advantages of friendly and reciprocal intercourse. Had I lived then under such auspices, in these respects, as I now enjoy, to which you my brothers, with qualities of high order, so generously contribute, doubtless I would have been farther advanced toward the goal of perfection ever to be desired—but yet never to be fully attained.

In the times thus passed repeated attempts were made to organize and maintain a county

society; but it is mortifying to remember that petty differences, little jealousies, and most of all indifference caused their several failures.

Now, however, I rejoice that while yet I can be counted as a practitioner, the advance of our noble profession has brought up a goodly number of competent, accomplished and ethical devotees of this calling; and that we together recognize and realize the fact that united we are better and happier.

To join in this is certainly the proper thing for everyone to do, who desires to enhance his own worth and to exalt the standard of his profession. In fact it is essential for his self-respect (not conceit) and his confident assurance, as well as his professional enjoyment.

The doctor who in this bright day of scientific medicine, of professional intelligence, culture and honorable association, keeps aloof from professional intercourse (though posing in vulgar pretense), must be conscious of his unworthiness. Like the mole, choosing for himself seclusion and a habitude of darkness, he becomes weak-eyed, and is uneasy in the upper light of open day, showing a want of adaptedness for higher life.

A man's character will be influenced by the environment he chooses.

In this position, gentlemen, with which you have honored me, still thanking you, I invoke and pledge such fidelity and co-operation as will secure the worthy objects of our association.

PHYSICIANS' VOWS FOR 1906.*

By J. M. OWENS, M. D.

Gentlemen:—

The subject assigned to me is rather indefinite, under the caption above given. The act of vowing, of necessity requires not only the one vowing, but the parties or party to whom the vow is given; ordinarily the accepted definition of vow, is a solemn promise to God. In this case, however, we assume that the programme arrangers had in view our vows as practitioners to ourselves and to our patrons.

I desire to begin the discussion of the subject by affirming, that all organizations based alone upon practicability, soon perish; this also holds good in individual character, the divorce of which entirely from sentiment insures its early disintegration and destruction. This being true, we should then let sentiment constitute the main-spring which should actuate us in our vows for the present year.

In order to intelligently vow for 1906, we should recognize 1st, that sentiment should

underlie our vows, and 2nd, the individual rights of man. Recognizing then these principles, in vowing to our patrons for the present year, we must not fail to recognize their rights to demand of us something in exchange for their chattles; we should therefore vow or make a solemn promise to them, to reach a point of mental adroitness much in advance of the year just passed. To discharge our obligations to them we should strive to reach the highest points of mental proficiency attainable with our environments. Keeping this then before us as a vow and conscientiously working for this end, we strip the most ignorant of causes of complaint, and place our noble calling upon the high plane that it merits. In the pursuit of "filthy lucre" we often neglect the mental side, and in so doing we offer insult to the one who gives us life and being, and practice duplicity with those who place the lives of their families in our hands to look after and protect. To me the first vow we should register to our patrons then is to reach the highest point of professional proficiency commensurate with our opportunities, making an extra effort if you please to get a little beyond.

We cannot expect to arrive at anything like success in our calling without leading good lives; an exemplary life takes root in our desire and ability to let sentiment predominate in our daily vocations, and dealings with our fellow man. There is nothing more foreign to the principles of our profession than to practice for revenue only; of course it is expected that we make a living, in our work, and in order that some stiffness be given to our standing and influence in the community, we should be self-sustaining; but the moment we see only the principle of barter and exchange in our profession, that moment disintegration begins with our influence and standing. All of the real pillars of our profession have died in moderate circumstances, some intestate, financially, but rich in plaudits both from votaries and beneficiaries. Our life is one of sacrifice, and we should glory in this, if by so doing we make others better and happier.

A third vow which we should register is to court a friendlier, and better feeling toward each other. If we find one of our number possessing some unfortunate trait, or characteristic, foreign to our fraternity, instead of using this as a lever to overturn his chances of supporting himself and family, we should remember that where he is proficient we may be deficient, and *vice versa*. Then to me the spirit of our profession teaches us to help, aid, and assist, and by so doing bring together the votaries in indissoluble bonds of love and affection, instead of sowing seeds of jealousy, dis-

* Read before the Pulaski County Medical Society, January 12, 1906.

cord, and envy, thereby dividing or opening a way for early disintegration and destruction of our work and influence.

The strongest and most potent factor for the success of our profession as a whole is organization. We should not only register a vow to strengthen our county society, but our State society; we should not stop here, but make continuous efforts to strengthen our national society. We should not only make individual efforts, but as a county society. By a united effort on the part of the subordinate societies of the different States the National organization can be surely and soon swung into its merited position, as one of the weighty bodies of the world. An entire cutting loose from our own personal interests places us in a position to arrive at a conclusion as to what we owe to our profession. Pride in our calling should stimulate us in this, and ought to be the chief motive force actuating us in this great work.

Taken as a whole my ideal of the solemn vow which we should register upon the threshold of the present year, is to do better, look to the interest of our fellow man as well as to our own. We may think, some of us, that this ideal is too high in this age of commercialism; but in entertaining this idea we slide far below the attributes and teachings of our great and noble profession. I am not one of those who desires to place our calling upon the low plane of mercantile commercialism of barter and exchange, but want to place it in the position that I think it merits. We owe certain things to our profession; we should meet the obligation. We owe certain things to ourselves; we should discharge the debt. We are indebted to our patrons; we should meet them half way, and if we fail we should strive to do better in the future.

Before closing I desire to emphasize a most solemn vow we should register to our Creator, the one who gives us life and health. Those of us who have been blessed with good health fail to take note of the fact that all we owe is to Him who gives us being, and we go forward without ever stopping to give thanks to Him for all His blessings; and we scarcely ever pause to consider that in our short sojourn here we are expected to register a vow for eternity, but we should. We are prone as practical men living in this age of commercialism to regard these sentimental thoughts as belonging to the women and children, but it is needless for me to say that a summons is swiftly and surely coming which will force us to think of this matter; let us then think of it seriously, vow to be better men and live accordingly, that when this last, as well as the most important summons comes, we will be ready, and meet it

with the same assiduity we meet the summonses of every day professional life.

THE NATURE AND CAUSES OF RHEUMATISM.

By JOHN G. CECIL, M. D., Louisville, Ky.

As stated by Dr. Church, "Rheumatism is a disease more easily described than defined." In the light of modern research acute rheumatic fever appears to be the most accurate of all the several names applied to this disease. Inasmuch as the word "articular" refers to only one of the many manifestations of this affection, its use may as well be abandoned.

Rheumatic fever is classified by all recent authors as an infectious disease, characterized by fever and arthritis, usually multiple. It is not contagious.

The loose manner in which "rheumatism" or "rheumatic" has been applied to many affections totally dissimilar has led to no little confusion. Hitherto under the name "rheumatism" has been included a medley of pathological conditions having little or no connection with each other except in the presence of pain and swelling in the muscles or about the joints.

Rheumatic fever is a disease distinct from other diseases, and though the cause be not certainly known it has a history and symptomatology that is definite. Like all other infectious diseases there are aberrant types which render diagnosis at times very difficult; in the vast majority of cases, however, the diagnosis is easy, there being few affections likely to be confounded with it.

The invasion of rheumatic fever is rather abrupt. Marked prodromal symptoms are rarely present; occasionally a sore throat or a few days of malaise may precede the attack; there is oftener a feeling of chilliness rather than a distinct chill. Following the rigors the fever rises rapidly, seldom exceeding 104 degrees F. The pulse is rapid in proportion to the fever. The appetite is lost, the tongue flabby and coated with a white fur; thirst is great; urine scanty, highly colored and of high specific gravity and a pinkish sediment consisting principally of urates is deposited. The surface of the body is moist and perspiring; the sweating at times becomes excessive and at first has an acid odor and acid reaction. Since the introduction of the salicylates in treatment, it is claimed that the perspiration is as a rule not so excessive as formerly. Coincident with the rise of temperature, or

quickly following, a joint becomes swollen and painful. The hips, knees, ankles, shoulders, elbows, wrists and heart, making thirteen points, are usually most often affected though scarcely any joint in the body is exempt. According to Leube, "It is of importance diagnostically that the vertebrae are also affected, and according to my experience not rarely and even quite isolatedly, thus causing the stimulation of other clinical pictures such as *caput obstipum* and spinal meningitis." The affected joints are excessively painful, the slightest touch or movement greatly increasing the pain. The patients therefore assume at once a slightly flexed posture and an absolutely quiet position. The overlying skin is red, hot, tense and somewhat oedematous, and shows increased sensibility to changes of temperature, but, according to some observers, a diminished sensibility to faradic irritation. Swelling of the joint is principally caused by the oedema of the skin and of the ligaments, but occasionally by an effusion in the articulation itself. A remarkable feature of this disease is its migratory character; the joint first attacked seldom remains the seat of violent inflammatory activity longer than three or four days, even when not treated; then by metastasis the seat of activity is transferred to another joint, perhaps one far removed, or to the heart. This may continue until nearly every joint in the body is attacked. This dissemination to many joints and the rapid change in the localization of the disease is characteristic of rheumatic fever only. Another distinctive feature is that a joint inflamed in the course of rheumatic fever, when uncomplicated by any other infection, never suppurates, in this respect differing markedly from the misnamed gonorrheal and scarlatinal rheumatism. On the contrary, it is common to see an articulation the seat of repeated attacks and relapses of rheumatic fever and be restored to perfect function and usefulness.

The implication of the heart in an attack of acute rheumatic fever is generally designated a "complication," but there is indisputable evidence that the rheumatic poison may first attack the heart and afterwards the joints, and should therefore be regarded as one of the points of original attack.

Endocarditis occurs, according to different observers, in from 25 per cent. to 50 per cent. of all cases, pericarditis in from 10 per cent. to 15 per cent., and myocarditis more rarely. Drs. Sturges and Cheadle state "That in children endocarditis arises in connection with slight manifestations of the other forms of acute rheumatism, or even apart from them, and that inflammation of the endocardial valve

structures is nearly twice as common in the case of children as in that of adults." And again these same authors state "That endocarditis is liable to come on insiduously without its existence being known or suspected until some other rheumatic manifestation leads to examination of the heart and to the discovery of valvular mischief already established."

The mortality caused directly by rheumatic fever is remarkably small, and varies very little in countries where it commonly prevails, the rate being not more than 0.3 per cent. in uncomplicated acute cases.

In geographical distribution rheumatic fever is ubiquitous, but it is far more prevalent in temperate than in tropical or polar regions. Winter and spring months being the seasons when cold and moisture operate most strongly as predisposing causes, give the largest number of cases. Dr. Church, however, states that the incidence of rheumatic fever on the metropolitan population of London is remarkably similar to that of enteric fever, and that the maximum number is attained in September and October. This is certainly contrary to the usual observation in this country. Particular houses, especially those with bad sanitation, are responsible for the development of many cases.

Racial differences probably have little bearing upon the susceptibility to the disease, one race being about as prone as another. The sexes are affected about equally, though it is generally believed that males are seized more often than females because more exposed by occupation to the inclemency of the weather. In children there is no difference as to liability. While no period of life is exempt, acute rheumatic fever is essentially a disease of adolescence and early man and womanhood. The disease has been described in a babe of twenty-three days and in another of four weeks, and in a man of over eighty years. Carefully collected statistics will show about 7 per cent. occurring under ten years of age, 73 per cent. between the ages of ten and thirty, and 20 per cent. over the age of thirty.

That some families are predisposed to this disease there can be no question. Dr. Cheadle has shown that the tendency to rheumatism is transmitted as strongly as the tendency to gout, and that hereditary predisposition is found in 20 per cent. of rheumatic children.

The anaemia following an attack of rheumatic fever is profound, and haemic murmurs frequently heard cause apprehension as to valvular injury.

The duration of rheumatic fever is variable, from a few days to many weeks or months. Under active treatment it may sub-

side in a few days. Not infrequently, however, the acute symptoms may abate, but the convalescence will be tedious. One attack predisposes to another, and occasionally the progress from acute to chronic rheumatism is scarcely uninterrupted.

Hyperpyrexia, which fortunately is rarely witnessed in rheumatic fever, is not unlike similar conditions seen in other infections as small-pox, typhoid fever, scarlet fever, pneumonia and pyæmia. It is probably seen oftener in rheumatism than any other disease. The cause and pathology of hyperpyrexia is at present unknown. In some instances it is probably a question of a particularly severe intoxication of the central nervous system by the rheumatic toxine; in others the meninges become the seat of rheumatic inflammation, constituting cerebral rheumatism.

THE CAUSES OF RHEUMATIC FEVER.

Exposure to cold and dampness is held by all as a predisposing cause, although epidemics of acute rheumatism and isolated cases occurring independent of season or such exposure, prove that something more than cold and dampness is necessary. Lowered vitality from insufficient food, fatigue, over-work or disease is unquestionably of etiological bearing.

In this connection the older theories as to the cause of rheumatic fever should be mentioned. The metabolic theory explained the disease by the development of a *materies morbi* in the economy as a result of defective assimilation. Long ago Prout named lactic acid in the blood as the offending substance.

J. K. Mitchel in 1831 suggested the nervous theory. According to this theory "the nerve centers are affected by cold and the local lesions are trophic in character, or defects of metabolism result from the primary nervous lesion whence arises lactic acid, which accumulates in the blood."

The new classification places rheumatic fever among the infectious diseases. As yet, however, no specific micro-organism has been discovered and generally admitted as the essential cause of this disease. The argument in favor of its infectious character is briefly summarized by Arthur Newman as follows: "The clinical features of the disease and its analogy with recognized specific febrile conditions confirm the view that it belongs to the same group. The mode of onset, the frequent occurrence of preliminary sore throat and the course of the fever, point in this direction. It shares its tendency to relapse with such diseases as influenza, enteric fever, scarlet fever and diphtheria. Its metastatic character suggests striking similarity to mumps. The liability to second and later attacks does not

preclude this conception of the disease. There is among diseases admittedly infective a regular scale of immunity following a first attack, from small-pox, in which it is nearly absolute, through enteric fever and scarlet fever, in which it is feebler, to diphtheria in which immunity is evanescent, down to erysipelas and pneumonia in which one appears to predispose to further attacks. Rheumatic fever comes at the end of this scale. Nor can it be said that family inheritance argues against the infective character of rheumatic fever. The special proclivity of certain families to diphtheria, enteric fever and scarlet fever is notorious. That a special proclivity is required to develop the introduced virus of rheumatic fever may be admitted, but this does not preclude its infectious character any more than in the analogous case of erysipelas. The apparent absence of infection from patient to patient is explicable on the ground that the contagium is buried in the infected joints. Direct personal infection is relatively rare in many infectious diseases, as typhoid fever, cholera, yellow fever and tuberculosis, in which diseases the contagium has exit from the patient. The facts that the joints are the common seat of trouble favors the infective theory. As Dr. Payne puts it, "The vessels of the synovia of the joints appear to have some special proclivity to form a nidus for the wandering germs of disease, as for instance, gonorrhoea, scarlet fever and tuberculosis. According to Marlagan and others the therapeutics of this disease confirm the same view. The specific power of salicin in rheumatic fever is comparable to that of quinine in malaria and mercury in syphilis."

While no distinctive bacterium has as yet been isolated, it is interesting to briefly review some of the investigations made in this direction. Herman Sahli found in diseased joints in which there was no suppuration, and cultivated material from such joints, from the blood and from the pericardium of a patient suffering from rheumatic fever, fourteen hours after death pure cultures of staphylococcus citreus which he considered as the specific bacterium of the disease. Staphylococcus albus, and sometimes streptococci, have repeatedly been found in the synovial fluid of the articulations, in the pericardial fluid and in the cardiac valves in cases of acute and subacute rheumatism, by Birch, Hirschfeld, Bouchard and Charrin, Triboulet and J. Sucasé 1894, Leyden, 1895, also isolated a delicate diplococcus differing from all hitherto described which he personally regarded as the cause of rheumatism and its complications. Reinhard, 1898, thought that rheumatism was

an infectious disease secondary to some injury to the mucous membranes, especially those of the mouth which permit the entrance of this infectious agent. Achalmé found an obligate anaerobic bacterium in a state of purity at the autopsy of a man who had died of cerebral rheumatism. This organism, a large resembling bacillus anthracis, staining with the aniline dyes and not decolorizing under Gram has been found by other observers nine times. Sodium salicylate added to the medium hinders development of cultures. The medium in which the bacillus grows tends rapidly to become acid and unable to preserve the vitality of the organisms. Poynton and Payne, whose studies have in recent years attracted no little attention, deserve more extended notice. The subcutaneous or rheumatic nodule is regarded by them as being the most elementary lesion of rheumatic fever. These nodules are described as being comparatively frequent in the disease as it is seen in England. "They are small swellings under the skin gently raising it without any severe pain or tenderness, often easier to be seen rather than felt, and should be looked for over bony prominences and in tendon sheaths, the usual situations being the occiput, the olecranae, the patellae and the tendons of the extensors of the digits. These nodules appear and disappear sometimes with great rapidity. In a section through an early nodule will be seen three zones. 1st, a central zone of necrosis with exudation; 2nd, a zone of swollen and altered connective tissue; 3d, a zone of cellular exudation. In the early stage of their development there is another element, namely, the pressure of micro-organisms in the form of minute diplococci. These diplococci were found in three different nodules, and in one case produced rheumatic fever in a rabbit by a culture from one of them. The essential feature of the nodule is, then, that it is a true rheumatic focus; a local infection. Some of these nodules have been found situated more deeply attached to the bones themselves and very chronic in their course. In the nodule, then, is recognized pathologically a micro-organism, certain tissue changes, and a certain process of recovery. There may be recognized also, clinically, certain physical evidences, the influence of season and age, a course varying in duration, and the general tendency to recovery."

These observers further state that the organism is found with difficulty, and that experimental results are obtained with unusual difficulty, and that "the name of the micro-organism has proved a great difficulty. It is a micrococcus, and yet a streptococcus because it may grow in chains; a diplococcus because

its elements are usually coupled; and a staphylococcus because on solid media it may grow in bunches."

While these studies of Poynton and Payne are of exceeding interest, they have not been generally accepted as the true cause of rheumatic fever nor have they been claimed by the authors themselves as conclusive.

Recently Meyer in Leydon's clinic has succeeded in cultivating upon blood agar from the tonsillar mucus of rheumatic patients delicate streptococci-diplococci which, inoculated into animals, produced after one week fever, sero-purulent articular inflammations, serous exudates free from bacteria in the pericardium and peritoneum and in the pleural cavity, as well as endocarditis of either verrucose or of an ulcerative nature, but no sepsis.

"There can be no doubt, therefore, as I believe," says Leube, "that the diplococcus which was cultivated by Meyer is in a direct aetiological relation with acute rheumatism in man." But, and this opinion is shared by many other investigators, whether this organism is the sole generator of the disease, or whether, similarly as in cerebro-spinal meningitis, other micro-organisms might not at the same time, be able to produce polyarthritis, must be left undecided for the present.

COMPLICATIONS OF RHEUMATISM.*

By H. E. McKAY, M. D., Bardstown, Ky.

In treating the subject of complications of rheumatism, I shall first call attention to opinions of some of our most recent investigators along this line and treat the disease as an acute infection.

Just what special germ may produce this infection we cannot at this time say, but the late investigations of Sahli, Paynton, Paine, Wade, Gurhardt, and Packard seem to prove conclusively that it is either the staphylococcus or the streptococcus. Singer has examined ninety-two cases and considers that the staphylococcus pyogenes is the offending germ, while Netter and others seem to think that the streptococcus plays the important part as the causative agent in acute articular rheumatism. If their claims are confirmed by future investigators then acute articular rheumatism will be deprived of its specific character and the disease will be classed as a variety of septic infection.

It is a well-known fact that in many constitutional septic infections the joints, endoc-

* Read before Kentucky State Medical Association, October 20, 1905.

ardium, pericardium, and other organs of the body are often involved, and also that either the staphylococcus or streptococcus is often the offending germ in this trouble; consequently, we would naturally expect that such an infection would display itself by fever and multiple serous arthritis, and other local manifestations of a constitutional infection. By accepting this view as to the correct cause of the disease, then the so-called rheumatic complications would more correctly be classed as special localized symptoms of the infectious process. Such is my view, at least, and I shall treat the subject from that point of view. I think that this view of the subject would, in a measure, account for the frequent occurrence of acute articular rheumatism after scarlet fever, meningitis, and other acute diseases of this character.

Just how the germ invades the system, and how the infection does take place, must be finally determined by future investigations. We cannot say that the same course is followed in every case, nor can we say that the germ enters the system through the same channel in every case, but we do know that an acute tonsillitis often precedes the attack, and that many of the sufferers from rheumatism are also sufferers from some form of tonsillar troubles. Cradle speaks of a rheumatic tonsillitis, and also says that rheumatism is a frequent sequel of this trouble. Strumpell also makes the same statement, while Andrew says: "watch carefully all cases of tonsillitis, for rheumatism is apt to follow it." Fowler makes the claim that eighty per cent. of attacks of acute articular rheumatism follow tonsillitis, or are of tonsillar origin. Other writers on this subject place the tonsillar origin of rheumatism at from five to fifty per cent. The wide range of opinion along this line may, in a measure, be accounted for by the fact that the observations of patients extend back over a longer period preceding the local arthritis in some cases than in others. None of these investigators state how long we should expect the joint symptoms to be delayed after the tonsillar symptoms have appeared. Is it not possible that a closer history, dating back several days or weeks before the articular symptoms appear, would give us much valuable data along this line? While this tonsillar involvement might be so slight as to be overlooked by the patient, still enough inflammation might exist to give the offending germ time to find lodgment in the system. That there is a close relation between these two diseases we can no longer doubt, and a close observation may bring about a solution of the question.

Now, as to the secondary attacks we so often see in the same patient, it becomes a question as to how we are to account for them. Here we will make the suggestion that some old focus is left behind as in latent gonorrhoea, only awaiting some excitement to break out; or that the patient, as in pneumonia, develops a constitutional weakness and the system is unable to cope with the invasion.

As to the so-called complications, they are as numerous almost as are the organs of the body. The joints, muscles, tendons, skin, endocardium, pericardium, pleura, peritoneum, spleen, lung, kidney, and brain may all become affected during an attack of acute articular rheumatism. Sometimes only one organ, and again two, three or more, may become involved, one at a time, or several almost at the same time. There seems to be no regular order followed in this process, nor does the number of joints affected and the severity of the local manifestations seem to bear any relation to the severity of the complications that we may have to deal with in any given case of rheumatism. Even the temperature may not give us much warning of the approaching conditions. In my own personal experience the most grave symptoms have shown themselves after very slight local disturbance. I recall three patients that have come under my observation in the last two years, that to me fully illustrate this point. The first patient had only a slight arthritis of one wrist, when without any warning whatever the pericardium, endocardium, pleura, peritoneum, and lung became infected. The second patient had only a slight arthritis of the ankle, yet peritonitis, endocarditis, pericarditis, with possibly myocarditis, pleurisy, and pneumonia developed. While in the third, one wrist and elbow being the only points involved, pleurisy, peritonitis, pneumonia, endocarditis and pericarditis came on in the order named.

In view of the fact that there are so many of these complications, and that a discussion of them would overstep the time limit of this paper, I will take up only a few of the most common ones, and at the same time the most important ones to the general practitioner.

In mild cases of acute articular rheumatism we may see only one or two joints affected. In the more severe cases, however, the number of joints affected may be very great. The tenderness is often in striking contrast to the slight signs of the local inflammation. The joints, however, show signs of synovitis and the effusion into them produces a swelling of the fingers, wrists, elbow, ankle, or knees, and that can be plainly seen if these joints happen

to be among the number affected. There may be inflammatory changes in the sheaths of the tendons, and perhaps in some cases even in the fascia and muscles themselves. This process may be very closely confined to one joint throughout the attack, but most often skips from joint to joint, one joint however generally bearing the brunt of the disease.

The muscles in many cases are often quite painful upon pressure about the affected joint when it has been long involved, and muscular atrophy, and muscular paralysis may remain long after the accompanying arthritis has disappeared. This is seen most often and in its most typical form when there is much trouble in the shoulder joint, the deltoid muscle becoming very much atrophied and its functional usefulness becoming very much impaired.

As early as 1836 the attention of the medical world was called to the frequency with which acute endocarditis accompanied acute articular rheumatism. Statistics are lacking to show just how often this complication does occur. Strumpell says 25 to 30 per cent., while Andrew places it as high as 40 per cent. This infection is, no doubt, carried direct to the heart through the blood, and Andrew adds: "whose action is assisted by the friction between the blood current and the surfaces of the heart's valves." Church and Cheadle state that in a large majority of cases, if no endocardial murmur is present during the first ten days of the attack, the endocardium escapes. Endocarditis sometimes comes on very insidiously and without warning, with no distinct symptoms to indicate the threatening condition. In children we often see endocarditis coming on, even with little signs of trouble in the joints, and Andrew says the endocardial symptom may be the first indication we have of the disease by which we can make a positive diagnosis. He estimates that endocarditis is seen twice as often as a complication in children as in adults. More often, however, definite subjective symptoms, such as pain over the region of the heart, which at times may extend down the left arm, cardiac palpitation, and a rise of temperature or other well marked symptoms, put us on our guard. The mitral valve is more often affected than is the aortic; hence, we have usually a soft blowing systolic murmur at the apex of the heart. Aortic murmurs may also be heard, but their true nature is of doubtful clinical significance. This murmur is preceded by prolongation of the first sound. Inspection in endocarditis will, as a rule, show a normal impulse. This impulse is forcible and irregular during the first stage, but later becomes less distinct and

feeble. In recurrent endocarditis, on account of compensating hypertrophy, the area of visible impulse varies considerably. The area of the heart dullness is found to be normal only in those cases where the muscles of the heart are also affected. When myocarditis is present the dullness is increased in the transverse diameters. In recurrent endocarditis the increased dullness corresponds to the increased area of impulse and is due to the same cause, viz., compensating hypertrophy.

The prognosis in endocarditis as to any immediate danger is usually favorable, and under proper conditions the heart may be fully restored to its normal condition. However this may be, we should always be guarded in making such a prognosis on account of the tendency of chronic endocarditis with permanent valvular lesions resulting. Then again, the remote effect that may manifest itself even in cases that have apparently fully cleared up, should make us even more cautious in giving a too favorable prognosis. Pericarditis, which may or may not be complicated by endocarditis, is next in order as to frequency. Upon the advent of this complication there is a pericardial oppression with slight pain or feeling of soreness. There may be a slight rise in temperature just preceding the effusion into the pericardial sac. The pulse becomes full and strong, but during the second stage of the disease it may become rapid, feeble, and irregular, due to the mechanical interference with the heart's action caused by this liquid effusion. The oppression is anxious, the respirations are increased and labored, and often become irregular. Upon inspection we find if much effusion be present a distinct bulging of the intercostal spaces. In the first stage the apex beat is intensified, but as the effusion increases it becomes weaker, and when the pericardial sac fills the impulse beat disappears, because the heart is now surrounded by fluid and is pushed away from the chest wall. When we palpate the chest we find that the apex beat is diffused and feeble, becoming less distinct as the effusion increases until it is lost, unless there be some old adhesions that hold the apex of the heart in contact with the chest walls. Even despite a large accumulation of fluid we may be able to detect a friction-like rub in a few cases at the base of the heart. Percussion will show the area of cardiac dullness to be greatly increased extending from above downward, the lateral borders extending too near the sternum on the right and to the anterior axillary line on the left. Auscultation clears up all doubt as to

the diagnosis when we hear the double friction like rub. The sound is usually heard over a small area, most often where the heart is in close contact with the chest walls. Occasionally, however, it can be heard over the whole pericardial space. This sound is peculiar on account of its superficial character, thus distinguishing it from the endocardial murmur. The chances for complete recovery from this disease as a complication of acute articular rheumatism are favorable unless it coexists with other serious symptoms, where it may then precipitate a fatal termination. We should not lose sight of the fact that chronic pericarditis, with or without adhesions may be left behind and our prognosis should be given accordingly.

Myocarditis may be seen occurring with the two preceding complications, or as some claim may occasionally occur independently of either. I am inclined to the belief, however, that it is rather a result of the two former complications, and should we find symptoms simulating those of myocarditis independent of either of the preceding conditions, a more careful examination should reveal a muscular weakness rather than an inflammation of the heart's muscles.

Symptoms of this complication are rather indefinite. We should, of course, have great enfeeblement of the heart's action shown by rapid, small and irregular pulse. The respiration would be quick, shallow and irregular. The heart's sounds are short and feeble. Murmurs are at times heard. Keihl explains these murmurs by saying, "The complete normal closures of the valves of the heart are dependent upon a normal state of the different portions of the heart's muscles, and any conditions of these muscles deviating from the normal would produce this murmur."

From the above we can readily see why anything but a slight myocarditis would be apt to prove rapidly fatal, and upon the advent of this complication, prognosis could be only a warning of the approaching end. While recovery is possible it is very unusual.

Functional murmurs of the heart may be often heard, also an angina pectoris of a nervous origin may occur, but these conditions are of little clinical significance; hence, we mention them only as a possible aid in making a differential diagnosis.

While pulmonary symptoms are somewhat unusual, they do occur. Sometimes pleurisy, with or without effusion, in one of both sides is seen. Pleurisy accompanying or complicating acute articular rheumatism differs but little from that occurring with any other disease or coming on as a primary trouble. This complica-

tion would, of course, cause us to be very careful in giving too favorable a prognosis. Pneumonia occasionally is seen complicating articular rheumatism, but so far as I have been able to determine it is possibly due to pressure upon the lung and to a restriction of the chest walls caused by some serous effusion into the pleura, pericardium, or peritoneum, rather than to an extension of the infecting germs.

Peritonitis, while seldom a complication of rheumatism, is sometimes seen. An elevation of temperature, pain in the abdomen, with frequent vomiting would first call our attention to this complication. Inspection would reveal an increasing abdominal distension, the distension gradually increasing in proportion to the amount of local inflammation. Palpitation shows an extreme tenderness with a tense board-like hardness of the abdominal wall; there is a tympanitic note resulting from percussion over the abdomen unless there be a large effusion, then a dull percussory note would result. While recovery may take place after this complication, we would be forced to consider the condition as a most grave one and be prepared for a fatal termination at any time.

In acute articular rheumatism a copious perspiration of acid reaction and of a sour odor is given off from the skin. Later the reaction may become neutral. Profuse sweating does not seem to have any effect upon the temperature, but seems to be rather a method of eliminating the rheumatic poison. An occasional rheumatic eruption, such as urticaria, sometimes becoming associated with purpura, is seen. Some authors speak of cutaneous ecchymoses with a general hemorrhagic condition.

In 1881, Barlow & Church called attention to a sub-cutaneous nodule during an attack of rheumatism, these nodules being attached to the fasciae and tendons. They are hard, movable, and painless, and appear mostly in young subjects, and the theory has been advanced that these nodules when large indicate uncontrollable cardiac disease.

The renal symptoms, while always present, are rarely of much importance. The urine is highly colored and acid, and diminished in quantity, and if allowed to stand urates are deposited. The chlorides are diminished, but rarely absent, while albumen is occasionally found. Acute nephritis is seldom a complication of acute articular rheumatism.

An enlarged spleen can often be found in acute articular rheumatism, as in the case of any other infectious disease.

In certain peculiar cases of acute articular

rheumatism very serious cerebral symptoms are developed. These, when seen, develop very rapidly and are accompanied by high temperature. The temperature rises to 104 or 105. There is great nervousness and delirium, and sometimes signs of motor irritation, such as general convulsions, or tonic muscular contractions of the extremities. The face grows pale and cyanotic, the pulse small and extremely rapid. Just before death the pulse may go as high as 107 or 108, and may show a farther rise even after death. It is claimed that this complication occurs only in drunkards, or in those whose nervous systems have otherwise been impaired. This claim, however, does not seem to be proven and any case of acute articular rheumatism may be complicated by this grave disease. This condition always proves rapidly fatal.

The treatment of these complications does not come within the scope of this paper, but I will say that the treatment of each complication would differ but little from that given should it occur as a primary disease. We should ever bear in mind that the first thing to be accomplished is a thorough eradication of the rheumatic poison from the system. At the same time watching carefully each symptom and meeting it with the remedies that will least interfere with the general line of treatment.

DISCUSSIONS.

Dr. W. W. Richmond, Clinton: I was very glad to hear Dr. Cecil emphasize some of the complications of rheumatism, especially those of the heart. I heartily agree with him that that organ is sometimes charged with complicity, when in fact it is the seat of the disease. The same may be said of the pericardium and other serous membranes. Muscular rheumatism is a common variety in this country, and may be located in the muscles of the heart as well as in those of other parts of the body, not always as a complication, but many times the primary location of the disease. Dr. McKay spoke of rheumatic tonsillitis as a complication of rheumatism; we see these cases frequently and like those of the heart they often occur as a direct result of the poison; anti-rheumatics give relief. I do not believe that either of the essayists mentioned cystitis and orchitis; while they are of rare occurrence, they have been observed as complications of rheumatism. It has been my experience that in nearly all forms of rheumatism the symptoms are more severe at night than in day time; this is especially true of the pain which accompanies the disease. The subject has been so thoroughly covered by the essayists that they have left but little room for comment.

Dr. Carl Weidner, Louisville: The essayists have mentioned everything we know about rheumatism. I had hoped that they would bring out something new about this disease which has been so obscure up to the present time as to its etiology. We are still in the dark about the essential cause of rheumatism. We do not know positively whether it is caused by any of the organisms that have been mentioned as exciting causes. We agree that it is an infectious disease, but whether the germ is a streptococcus or diplo-bacillus is a question, although everything points to the theory of infection.

There is one point with reference to the treatment about which I wish to speak. The treatment we are looking for is a specific treatment. The salicylates have yielded such remarkable results in the majority of the cases of rheumatism that this is mentioned as one of the points in favor of infection. The old theories which Dr. Cecil detailed so beautifully have been pretty well discarded by all observers. The sarcolactic acid theory is one of these. The acid is now regarded as one of the consequences of the disease, but the exact method of its formation is still unknown. It may be produced by a special ferment elaborated by the causative germ of the disease. Certainly its importance as a cause has been overestimated. The experiments made to produce rheumatism artificially have been numerous. The more recent experiments have been made with a streptotoxin derived from various sources, such as anginas, inflamed tonsils and joints, peritonitis, etc. These toxins were injected into animals and they produced symptoms that were identical with these ordinarily seen in rheumatism. These findings pointed more strongly than ever to the infectious nature of the disease, and it is possible that there are various organisms at the bottom of this trouble.

Dr. Cecil said that rheumatism is frequently confounded with other affections, especially those that affect the joints. That is true. It is often extremely difficult to differentiate between a rheumatic joint or a joint otherwise infected. Gonorrheal rheumatism, which is an example of a typical joint infection with the gonococcus, is an instance of this kind. We are often not positive whether the case is one of gonorrheal rheumatism, an ordinary infection, or rheumatism.

Then we are told frequently that rheumatism is an infection coming into the body through the tonsils. That has been my experience in many cases where the first sign of trouble was a tonsillitis. I invariably look for trouble in the joints in these cases, and I usually find it. No man living can say that these are real cases of so-called rheumatism, and distinguish them from other cases of joint infection.

Dr. McKay covered the complications of rheumatism very thoroughly. He mentioned them all

in the order of their comparative occurrence and importance. But he said very little about muscle. Of course, muscular tissue may not be involved particularly, but the endo, or peri-muscular fibrous tissue; it is usually called muscular rheumatism. This is at times one of the most difficult affections to diagnose. Sometime ago a physician sent for me. He had painful abdominal muscles. The abdominal wall was hard as a board and very tender to pressure. He was bothered to make a diagnosis. I concluded that he had rheumatism of the abdominal muscles, which it turned out to be. I was guided largely by the previous history, and by excluding everything else I ventured the diagnosis of rheumatism. The same patient later had an attack affecting mainly the lumbar muscles, so that I and one or two others though seriously that possibly there might be a formation of pus, or some other trouble in the kidney.

In another instance there was a breaking out on the skin in the form of an erythema multiforme, and the reason for saying that this is rheumatic in character is that the affection invariably yields to large doses of salicylate of sodium, and that patient had also had other manifestations of rheumatism.

As to chorea, I do not know whether that should be classed as a complication of rheumatism, but it stands in such close relation to rheumatism that I am inclined to look on it as a complication. I have heard it said that chorea precedes rheumatism. When I see a case of chorea I invariably ask whether the child has had an attack of rheumatism, and in many instances I get the history all right. In treating chorea I invariably give the salicylates in one form or another, and for the anemia I give iron and arsenic. The anemia is a sequel, of course, but must be considered. The rheumatic anemia is a very serious affection and needs prompt attention.

Another point is the yielding of certain effusions, not only in the joint, but in the pleural cavity, to the salicylates. I think that every case of pleurisy should be considered of rheumatic origin, unless there is a definite history of other infection. It ought to be treated, for a time at least, by large doses of salicylates, before we give up the hope of resorption of the fluid, or before we institute other treatment, such as thoracentesis.

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Dr. Wm. Bailey, Louisville: I wish to commend these papers, but there are several points that I want to emphasize. I accept fully the statements that involvements of the endo-cardium and pericardium are not complications. We have fallen into the mistake of considering them as such. What is a complication? If the involvement of these serous membranes is de-

pendent on the infection as is the involvement of a joint, then these are not complications. They are a part of the disease. To be a complication, the condition must occur in the course of a disease and be dependent on it. When it occurs in the course of the disease without being dependent on it, it should be styled an intercurrent affection. So that I would have you remember definitely the meaning of these terms. I am sure that we are right in claiming that the involvement of the heart is not a complication because, occasionally, the heart symptoms are the first and chief manifestations of the rheumatic affection.

I am always in doubt if the inflammation is confined to a single joint. I have seen so much evil follow the treatment of an inflamed joint on the supposition that it is rheumatism that I have come to be very careful in making a diagnosis. I have heard of cases being treated on that basis not for six weeks but for six months, with the result that the joint was entirely destroyed, so that it became necessary to amputate the leg. That ought to have been a surgical condition from the very beginning. I doubt that there was any rheumatism in it at all. So that with involvement of a single joint, we should be exceedingly cautious. The general practitioner should give way to the surgeon more often than he does.

There is something peculiar about rheumatism—that in the so-called inflammatory involvement there is not destruction of tissue, and yet the symptoms are such that the disease ought to be styled an inflammation. I know of no inflammatory process that comes under the observation of the surgeon in which the exudate can be so promptly and efficiently removed as in rheumatism. You will not find that total subsidence of all symptoms as in rheumatism. Rheumatism has not all the characteristics of an inflammation.

As to the management of these cases, I believe that we have a specific treatment of an acute attack in the salicylates. It is useless to give five or ten grains of salicylate of soda in a case of inflammatory rheumatism. I have seen three or four joints involved; the temperature up to 105 degrees, and the patient in agony. Under twenty grain doses of salicylate of soda all the symptoms have disappeared inside of three or four days, and the patient get up and walk; but we do not always see such prompt results follow the administration of the salicylates. When you give them, you should always give large doses, if you expect to achieve any results.

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Dr. W. F. Boggess, Louisville: I enjoyed these two papers very much, but, as Dr. Bailey said, there is little room for discussion. No criticism

can be made of either of these two papers. The term rheumatism is a very vague and indefinite one, and I am not so sure but that it ought to be dropped from our category of diseases. There is no more inefficient and unsatisfactory classification of joint infections and joint diseases than that known under the name of rheumatism.

There are three features common to all cases of acute rheumatism of the articular variety. One is the joint and constitutional symptoms, which are principally febrile and toxic. The second is the localization of the inflammatory lesions in the joints, and sometimes in the muscles and tissues other than those in the joints. The third is the tendency of the disease to affect the viscera, particularly inflammatory complications, of the heart and serous membranes. Those three factors must be considered in every case of inflammatory rheumatism, the acute rheumatic fever, the chronic form that leaves some chronic involvement of the joint, and the various forms of muscular rheumatism. Therefore, it seems to me, that we should make a new classification that is more nearly correct than the one we now have.

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Dr. J. B. Marvin, Louisville: I believe thoroughly in the infectious nature of rheumatism. We are gradually narrowing our definition of rheumatism to include only the acute infectious variety characterized by fever and polyarticular inflammation of a non-suppurative character. Rheumatism, properly speaking, is different from neuralgia and myalgia, and unless we bear that in mind in our clinical work, we are quite likely to confuse ourselves as to the true nature of rheumatism. Rheumatism licks the joint and gnaws the heart. Cardiac troubles are not complications of rheumatism; they are part and parcel of the disease. Therefore, the chief duty of the physician in treating a case of rheumatism is to watch the heart.

The majority of physicians cannot tell much about the heart. They can map out the size of that organ and locate murmurs, but that is all. Rheumatic patients do not die from the joint affection but from involvement of the heart, and sometimes involvement of meninges. I believe in specific treatment, in the use of alkalies, plenty of them, and in the use of salicylates; in rest in bed and warmth. But watch that heart. If you could put the heart at rest, like you can the knee or the ankle or any other joint, it would be well. What does it profit the patient if you relieve him of his pain? The pain may disappear without much treatment. What if the pain does disappear—if he has a valvular or myocardial trouble? I also believe in blisters. Nothing, in my experience, can equal little blisters over the third, fourth and fifth inter-spaces. Or if the disease seems to hang on to the joint for a week

or a month, a little blister around that joint will quiet the pain and take it down quicker than anything else. But remember to watch the heart.

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Dr. W. W. Anderson, Newport: Many of us have found comfort in painting the joint with ichthyol. The heart is usually affected before any murmur is heard, and we must not allow ourselves to be put off guard and suppose that the heart is all right because we do not hear a murmur. The valves must be damaged or incompetent before a murmur can be heard; therefore it is advisable to keep the patient in bed from the beginning of the attack until he is entirely well.

Dr. Cecil mentioned forcibly the extreme anemia of rheumatism. These patients should be treated not only for the acute attack of the disease, but they should also receive appropriate treatment for the sequelae. Treat that anemia and leave your case well, so that he may have sufficient resistance to ward off subsequent attacks of rheumatism.

RUPTURE OF THE UTERUS.*

By NEVILLE M. GARRETT, M. D., Frankfort, Ky.

Owing to the extreme rarity of the occurrence of this accident and the great danger attendant thereupon, I feel justified in calling your attention to it, it having fallen to my lot, a few years ago, to see two cases of complete rupture of the uterus, within a period of less than four and a half months of each other. However, in the preparation of this article I have drawn largely from the literature on the subject.

It is impossible to correctly state the frequency of this accident. Of the cases which do occur some are probably unrecognized, many unreported and some reported as post-partum hemorrhage and septic peritonitis, but it is probable that it occurs about once in 1,000 cases of confinement.

The rupture may be complete or incomplete. Incomplete rupture is one which affects the muscular structure of the uterus, but leaves the peritoneal cavity intact. It may take place into either of the broad ligaments, the cul-de-sac of Douglas, or the utero-vesicle space. A complete rupture is one which involves both the muscular and peritoneal structures of the uterus and which creates an opening between the uterine and peritoneal cavities.

Under the head of etiology may be mentioned anything that will retard the delivery of the child beyond a reasonable length of time, thus causing thinning of the lower uterine segment, though of course it does not follow that in all cases of protracted labor we will have rupture

* Read before the Kentucky State Medical Association, October 18, 1905.

of the uterus. Among the principal causes on the maternal side may be mentioned contracted pelvis, tumors of the uterus and vagina and rigidity of the cervix or vagina. On the foetal side the principal causes are hydrocephalus and shoulder presentations. Other causes are the unintelligent use of ergot and intra uterine manipulations, such as version and delivery of the placenta.

There are two methods in the mechanism of spontaneous rupture. First, rupture by thinning of the lower uterine segment. In proportion to the vis-a-tergo and the resistance, thinning of the lower uterine segment takes place, while it closely hugs the foetus, and it finally ruptures, unless the expelling force ceases or the resistance gives way. The second method is by compression of the uterine wall between the bony pelvis and the presenting part of the foetus.

The symptoms of complete rupture are supposed to be very characteristic and are, a sharp acute pain, a sudden cry from the patient, sometimes a sound of tearing tissue, internal and external hemorrhage, and shock, the degree of which depends on the hemorrhage; also recession of the presenting part and prolapse of the intestines. If the foetus escapes into the abdomen there will be two tumors instead of one, the foetus and the contracted uterus; but if the foetus remains in the uterus the womb retains its shape. When the rupture is complete, is in the lower part of the uterus, and takes place before the presenting part is firmly engaged in the pelvis, there should be little difficulty in detecting it. In such a condition the examining fingers come in contact with two passages, one into the uterus and one into the abdomen. The fingers introduced through the rupture, the edges of which feel somewhat like the rough side of a placenta, come in contact with maternal intestine and the slick outside of the uterus. Unless all or part of the foetus has escaped into the abdomen, the only way to differentiate between complete and incomplete rupture may be to insert the hand or finger through the tear. The external hemorrhage may be so slight, especially if the head is firmly engaged, as not to attract attention. Sudden collapse after delivery may indicate rupture.

The prognosis is of course very grave. Maternal death is caused by shock, hemorrhage, or septicemia, and foetal death by interference with the placental circulation. The prognosis in incomplete ruptures, or those in which the peritoneum is not involved, is of course more favorable than in the complete. If the tear extends into the rectum or bladder, such an accident adds gravity to the case. There may be hernia or incarceration of the bowel followed by gangrene.

The prophylactic treatment is very important. In all cases in which labor is unduly prolonged the obstetrician should be on the lookout for tetanic or cramp-like action of the uterus, retraction, and dangerous thinning of the lower uterine segment, in order that aid may be given before rupture actually occurs. When rupture is threatening, the force of the uterine contractions must be lessened by the use of chloroform or morphine, and any faulty position of the womb or foetus corrected. In all cases in which rupture is impending, labor must be speedily terminated. If the child is alive I think due regard should be paid to its life, as well as to that of the mother, though the advice has been given to terminate labor as quickly as possible, by the method safest to the mother, regardless of the foetus. This is a question which must be decided by each one for himself, should the occasion arise. Personally, I should very much hate to take the life of the child for the purpose of saving the mother, when there is a fair prospect of saving both by abdominal section, if the child cannot be delivered with forceps or by version. In the event of the foetus being dead, the best results may sometimes be obtained by craniotomy, or if it is a shoulder presentation by decapitation; but it should be remembered that the operation of embryotomy through a greatly contracted pelvis may be followed by rupture of the uterus. In neglected shoulder presentation before performing version it should be ascertained whether the foetus is still living. If the foetal heart sounds cannot be heard, the hand should be introduced and the cord palpated for pulsations. Version should not be performed in case of a dead foetus when rupture is threatening.

If the obstetrician is present when rupture takes place, and the child is alive, immediate delivery of the foetus is indicated, with the view of saving its life, though if the foetus remains entirely within the uterus, and the shock is not very severe, a slight delay may be permissible if there is urgent necessity for it.

In regard to the treatment after rupture has actually taken place, some authorities believe laparotomy to be indicated in all cases of complete rupture, and when there is serious hemorrhage from an incomplete one. In cases in which the operation does not seem to be indicated, the treatment is, after delivery, tamponade of the uterus with sterile gauze. Large ruptures with escape of the foetus into the abdomen, and ruptures of the uterine wall high up, are to be treated by removing the child through the natural passages if possible, and immediately performing laparotomy and hysterectomy, or one of the kindred operations. If after opening the abdomen the rupture is found to be of small size, and one in which good ap-

position may be gotten, it may be closed by buried catgut sutures in the muscular portion of the uterus with superficial catgut sutures for the peritoneal covering.

The first case that I saw was in a colored woman, who was of heavy build, twenty-seven years of age and the mother of six children, three of whom were living. I saw her about five A. M., Sept. 18th, 1901. Her mother, who was a midwife, said she had been having pains off and on for two or three weeks, but got worse between two and three o'clock on the 16th, at which time the membranes ruptured. She did not have hard pains at all, and was not confined to bed until the night of her death. She got worse about 3:30 on the night of the 17th, at which time she complained of being sore, but did not complain of much pain. She bled just enough for it to be noticed a short while before she died.

I was the first physician to see her, and when I arrived, about five A. M. on the 18th, she looked natural, but was moaning and as she did not reply when spoken to, I suspected hysteria. However, upon feeling for the radial pulse I failed to find it, and gave 1-15 grain of strychnia hypodermatically. Upon external examination of the abdomen it was found to be large and soft, but the foetus could be felt.

Just as I had washed my hands and gotten ready to make a digital examination the woman died, but I proceeded with the examination and failed to find any part of the foetus presenting. My finger came in contact with something which felt like a placenta, and I thought I had a case of placenta previa. I passed my hand up and brought down one foot, and later got the other. I did not succeed in delivering the child. As the woman was dead I did not like to leave the extremities protruding from the vulva, and also wanted to make a further examination into her condition, so I pushed the child back and found what I probably at first mistook for the placenta to be the uterus, which was well contracted and felt ragged on the lower side of the cervix. The uterus was torn from the posterior vaginal wall, and rested near the anterior abdominal wall. I passed my hand into the abdominal cavity, where I could feel my finger in the abdomen with my free hand on the outside, and could plainly feel the small intestine. The child was loose in the abdominal cavity. I made no particular search for the placenta, but it was not in the uterus, as I explored that.

The time of the occurrence of the rupture is not known, but as the peritoneum was found to be inflamed upon post-mortem examination, it is probable that it had occurred when she is said to have gotten worse, three or four hours before her death; or it possibly occurred about

thirty-eight hours before, when the membranes are reported to have ruptured.

A post-mortem examination was made on the 19th, at which time the foetus and placenta were removed from the abdominal cavity, whence they had both escaped. The parietal peritoneum was inflamed, and the posterior wall of the cervix was ruptured longitudinally for a short distance. The vagina seemed to have separated from the posterior part of the cervix. The foetus had hydrocephalus to a marked degree, which was the probable cause of rupture, though it may have been due to an abnormal presentation.

The second case was seen in consultation with Dr. S. E. James on the night of the 21st of January, 1902, a little over four months after the first case. The patient was a colored woman about 17 years of age and of heavy build. She had been in labor for several days. I gave chloroform and Dr. James made several attempts to deliver with forceps, but the instrument slipped off each time. After this I made an examination and my fingers came in contact with something which felt like a placenta. There appeared to be two cavities, which led me to suspect a double uterus. The cavity in which the child was contained appeared to fit closely about the child's head and there was great difficulty in entering it. Dr. James and I both attempted version, but neither succeeded. I could not force my hand far enough into the uterine cavity to get hold of a foot, though I could feel a hand. On further examination I felt a section of maternal intestine, which of course indicated a rupture of either the uterus or vagina. I could also feel the slick outside of the uterus behind the child's head.

Dr. U. V. Williams was sent for and just after his arrival I left to get instruments, etc., to get ready for a Caesarean section. When I returned Dr. Williams had also attempted to deliver with forceps and had done a craniotomy, but had not succeeded in delivering the child.

The mother's pelvis was abnormally small in the antero-posterior diameter, which was the probable cause of rupture. The abdomen was opened and an incision made in the anterior wall of the uterus, while it was still in the abdominal cavity, and through this opening the child and placenta were delivered.

There was found to be a longitudinal rupture of considerable size in the lower posterior part of the uterus and upper part of the vagina. This rupture was closed with a continuous catgut suture, though I am not sure the lower portion was entirely closed.

The incision in the anterior uterine wall was also closed with catgut. The abdomen was irrigated with a salt solution, but this was diluted and cooled with water that had not been

boiled. The abdominal incision was closed with silk worm gut, no drainage being used. After the operation her pulse was always rapid and weak, almost so much so that it could not be counted, though her voice indicated considerable strength. She died about forty-eight hours after the operation, at which time there was considerable distension of the abdomen, indicating peritonitis. The operation was performed under very unfavorable circumstances.

There were some points of similarity in both cases. The labor was protracted in each. In each the rupture was in the lower posterior part of the uterus and upper part of the vagina. There was not a history of severe and unusual pain in either case.

Since the report of the other cases made to the State Association last October, the author has met with another case of complete uterine rupture, report of which is made below.

This patient, a colored woman 35 years of age, had been attended by a midwife and labor had commenced about 48 hours before I saw her. The midwife had called in a physician who happened to be in the neighborhood and I think he examined the patient once, but as I have not talked with him about the case I do not know what condition he found present at that time.

I first saw the patient Jan. 27th, 1906, about 9:30 A. M. Labor began Jan. 25th, about 10 A. M., while she was ironing. She continued to iron until about 4 P. M. Labor pains continued until midnight of the 25th, after which she had no more labor pains, but suffered with abdominal pain.

On digital examination the case appeared to be one of central placenta previa. The os was pretty well dilated, but she was not having labor pains and had not had much external hemorrhage. Her pulse was about 145 and the axillary temperature 97. There was evidence of peritonitis, and rupture of the uterus was suspected. After consultation with Drs. J. W. Hill and C. A. Fish it was decided to open the abdomen. The surroundings were extremely unfavorable, but with towels and dressings previously sterilized and with the assistance of the Superintendent of the King's Daughters Hospital the operation was done with a fair degree of asepsis.

The abdomen was so filled that almost before I knew I had opened the peritoneum a gush of bloody liquid escaped. The child was found loose in the abdominal cavity and was extracted without much trouble. The placenta was still in the uterus, but was delivered with little difficulty.

The uterine rupture was low down through the left broad ligament, and in order to enter the uterine cavity from above it appeared at the

time of the operation that the finger had to pass first into the vagina and then into the os; but subsequent to the operation, upon vaginal examination, the vagina and external aspect of the cervix were found to be intact.

The woman was in such a state of collapse that only very little surgery was permissible. Had her condition been more favorable possibly a hysterectomy would have given a better result. I closed the peritoneal part of the tear with two interrupted catgut sutures in the most dependent portion and the remainder with a continuous Lembert suture of catgut. The abdominal incision was closed with through and through silk worm gut sutures and a gauze drain inserted. Before closing the abdomen it was washed out with a salt solution.

The woman was gotten to bed with a pulse somewhere between 175 and 195, but she was conscious and had a very pleased expression on her face soon after being put to bed.

Dr. Fish gave her a salt solution, intravenously, both before and after the operation.

After the operation her pulse improved for about three days, being 89 on the morning of the 30th, but after that it gradually increased in rapidity. Her temperature was taken most of the time in the axilla and ranged from 98 on the morning of the 31st to 101 1-2 on the morning of Feb. 3d. She had some distention, but with appropriate measures it could usually be gotten down to a fairly comfortable stage. From the first there was almost total suppression of the lochia and in a few days that which did pass was very offensive. About the fifth or sixth day I began washing out the uterus with a carbolized solution. The upper part of the abdominal incision united nicely, but the lower part did not do so well. The day before she died an abscess was discovered which opened through one of the stitch holes in the upper part of the incision. An immense quantity of foul-smelling material, some of which looked like it might be lochial discharge, and some pus were evacuated through this opening. I used considerable pressure in evacuating this abscess, but without causing much pain to the patient. Much of the discharge from this abscess was of about the consistency of water, which led me to suspect that there might be a communication between this abscess and the uterine cavity, and that possibly some of the water with which I had irrigated the uterus had escaped into the abdomen. About twelve hours after I discovered this abscess I irrigated it with salt solution and repeated the irrigation the following morning, at which time she was extremely weak, the pulse being about 150 and thready, but her temperature was 98 7-10 and she looked

bright and felt good, and I had hopes of her recovery. She died that afternoon at 3 P. M. on the tenth day after the operation.

The nurse thought that the child breathed once or twice, but I think she was mistaken in this and that it had probably been dead for some time before the operation was undertaken.

INFECTION AND CONTAGION.*

By WILLIAM A. JENKINS, M. D., Louisville, Ky.

The misconceptions and misunderstandings concerning: first, the definition of these terms; second, the relation existing between them, and third, the range, scope and limitations of the terms in their application to diseased conditions, are both apparent and real. To illustrate my meaning, select a few leading practitioners, or even teachers of medicine, and taking them one at a time, ask your man in an off-hand, casual way to give you a definition of infection. (If possible have a competent stenographer to record the answer in every case.) A few days later, after he had forgotten the incident, have some one ask the same man for a definition of contagion. (Copying the answer carefully as noted above.)

Do this in a number of cases, selecting your physicians at random, always copying the answers in each case. After you have made quite a collection sit down to compare notes. To simply say that the outcome of your investigation was unsatisfactory would hardly adequately express the situation. The result would be amusing and even ludicrous.

Now let us turn our attention to the field of medical literature and see how the matter stands there, for here, if anywhere, we should find in a concentrated and crystalized form the consensus of scientific opinion. What is our chagrin then to find that even here we are confronted by the same chaotic state of affairs!

The articles in our current medical magazines, in our text books of medicine, in our books of reference, encyclopedias and dictionaries (medical)—all, with but few exceptions, illustrate and bear out my statements. I have before me this moment, as I write, a number of accurate quotations taken at random from all of the sources mentioned above. (I refrain from quoting them for obvious reasons.) I defy any man to obtain from them any definite, accurate, clean-cut ideas as to the exact meaning, relation, scope and limitations of the terms Infection and Contagion.

A thorough investigation then of the entire range of the subject is in order. Let us ascertain why this deplorable state of affairs exists, and, if possible, point out a remedy. We

now turn our attention to a brief but careful and detailed consideration of the general subject of infection. We shall take up infection under the following heads or categories:—first, etymology; second, history, or the genesis of the term; third, aetiology; fourth, pathology; fifth, clinical symptoms; sixth, bacteriology.

Etymology—tracing the word back carefully we find that it is of Latin origin and is really composed of two words, *in-in* and *facio*, *facere*—to do, to make, to stain; hence the word naturally expresses a very close bond of union, i. e., to make in, to dip into, to stain, to infect.

The History or Genesis of the Term.—In the most ancient times of the history of medicine the term "infection" was used in the loosest, broadest and most indefinite sense. Cosmic and telluric influences were vaguely brought into play. All poisons and intoxications were included under the term. Various agents were supposed to be able to contaminate the air and the soil in an unknown and mysterious way. The careful study and comparison of clinical symptoms, and the study of epidemiology in general was just beginning to attract attention. Accurate and scientific methods of observation were not yet in use. The great and important study of aetiology was in its infancy. The compound microscope had not been invented. Modern physiological chemistry was an unexplored region. Bacteria, as a cause of disease, were unknown.

This picture faithfully portrays the gloomy, desolate and unsatisfactory state of our knowledge in the earliest times. The predicament was not unlike that of a traveller in an unexplored region without map or compass, surrounded on every side by the mysterious and the unknown. Let us now attempt to follow and trace the means by which this region was mapped out, bounded and described with at least a creditable degree of accuracy.

The first important step in advance was the differentiation between poisons, or intoxications, and infection. The poisonous or intoxicative agents may belong to or be directly derived from the animal, vegetable, or mineral kingdoms. Some of these poisons are found as poisons *per se* in nature. Some of them are produced by highly complex chemical processes from either organic or inorganic material (which substances may of themselves be absolutely innocuous). The class of poisonous or intoxicative agents most commonly met with however, are, as a rule, produced during the anabolic or catabolic processes of various plants and animals; or, in other words, they are metabolic products. These poisonous materials may be produced within the tissues of the

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plants or animals, or from the nutrient media surrounding them. As examples of poisons belonging to the mineral kingdom, we would mention mercury, arsenic, copper, et cetera (as well as certain chemical substances derived from these as bases). As to poisons emanating from plants, we would say that the higher order of plants furnish us with poisons technically termed "alkaloids," e. g., strychnine, nicotine, aconitine, et cetera. The lower order of plants, most of which belong to the class known as bacteria (some few do not), furnish poisons manufactured out of the nutrient media or albumenoid substances, whilst the bacteria themselves may be dead or harmless in the human host.

The toxic bodies mentioned above and called, according to their nature and mode of production, toxic ptomains, toxins, toxalbumins, and toxenzymes, are active and poisonous. The flesh of any animal may acquire or take on poisonous properties under the influence of bacteria, which are in themselves harmless or non-pathogenic in the human host. Many other articles of food, such as milk and fish, may be changed in the same way by the action of simple fermentative bacteria. *Note particularly here that the poisonous effect is not brought about by the bacteria themselves entering into, and multiplying within the body of the host (this would be true infection), but is, as I emphasized above, produced by toxins which owe their existence to and are manufactured by certain bacteria. These toxins alone do the damage, and in this class of conditions the bacteria themselves are either dead or nonpathogenic to the human host. As to poisons produced within or by animals, we would say that certain mollusks and fishes normally manufacture within themselves products that are poisonous to human beings.*

The overlong retention of the imperfectly oxidized products of metabolism, which are produced entirely within the human body (and are not in any sense due to bacteria) may and do produce manifestations of disease. These processes come legitimately under the head mentioned above, viz., poisons and intoxications—auto-intoxications, if you wish. But the term infection or auto-infection should never be applied to these conditions, it is not only confusing, but incorrect.

Leaving out of consideration, then, the special idiosyncrasies of certain individuals, and the peculiar mode of application, or the manner of entrance into the system, of the poison in question, (as the weight of these factors are relatively constant in all diseased conditions), we formulate the following definite rules or requirements for poisons or intoxications: first,

the severity and character of the symptoms are directly proportionate to the dose of poisonous material ingested; second, no definite and well marked incubative period or interval is necessary before the poison manifests itself by distinctive symptoms; third, and most important of all, the poison is absolutely and positively incapable of self-increase or multiplication within the body.

Thus we have placed a large group of disease-producing conditions on a sure, definite, and unassailable foundation. And this fact alone diminishes to a certain extent our task, and permits us to proceed with at least a greater degree of confidence.

The next point in regular order is that of *aetiology*. The whole question of classification (as we readily see), depends upon our conception of the cause of disease, and just in proportion as modern refined methods of scientific investigation have come into use, e. g., the invention of the compound microscope, and the application of physiological chemistry, aided by the clinical study of disease, in that same proportion our notions of aetiology and our classification of diseases, have been profoundly influenced and changed. As the history of the aetiology of disease is dependent in part upon, and is inextricably interwoven with, the subjects of bacteriology, pathology, and clinical symptoms, we shall consider them as a group making no especial effort to separate each distinct topic.

The probability of disease being produced by small animate agents or parasites (whether animal or vegetable) was suspected long before it was proven as a fact. Medical literature furnishes abundant evidence that the trend of thought was in this direction as far back as 1650. The attention of medical men was attracted and fixed by observing that certain diseases were confined almost entirely to special localities or districts, and only people in that locality contracted the disease. Again, it was noted that in the case of another group of diseases, simple contact with the patient affected, or even the close approach without actual contact, was sufficient to produce the disease in the healthy individual. In yet other instances, handling articles which the diseased individual had handled, or wearing clothes which had been worn by said individual, or by handling his dejecta, the same result was brought about. It was also suspected and proven that the disease-producing principle from the dejecta viz., the spittle, urine and stools, could contaminate various substances used as foods, e. g., water, oysters, green vegetables, et cetera, or could be carried by currents of air on particles of dust.

From the above observations, and others of

a similar nature the following laws were deduced, which, when present in a given disease, would cause us to suspect its infectious nature. They are as follows: First, "its epidemic or endemic character." Second, "it is usually self-limited." Third, "it affects mainly the young." Fourth, "its symptoms are suggestive of other diseases known to be infectious." Fifth, "there exists a marked tendency to albuminuria, leucocytosis and anaemia." Sixth, "accompanying toxæmic processes." Seventh, "high fever, sweats and possibly rashes."

Next the attempt was made to separate or to differentiate those conditions or disorders which were due to animal parasites. It was noted, of course, by the earliest observers that certain diseases or departures from health, were produced by agents manifestly belonging to the animal kingdom. For in many cases (e. g. certain of the nematodes, cestodes and arachnids) the parasites were sufficiently large to be recognized by the naked eye and handled with the hand. Ordinarily there is no distinctive group of clinical symptoms accompanying these conditions, and the disturbances produced by these parasites were of a local and not a systemic nature, and that their action in or on the human host is chiefly of a mechanical character.

The problem apparently was an easy one, as, generally speaking, the line of demarcation between the animal and vegetable kingdoms, as we see them represented by the common species all about us, seems to the superficial observer to be distinct and well marked. As one naturalist very tersely remarked, "It is quite easy to differentiate between a cow and a cabbage." Notwithstanding these facts we know that there are points where these two kingdoms touch and blend, e. g., a certain organism is claimed and classified by scientists as an animal; later, on account of some new characteristic, or some new light thrown on the subject, the organism is reclassified as a plant. And so the fight goes merrily on—a given organism is captured by one side and then recaptured by the other. Some of the most scientific and profoundest biologists that the world has ever known, e. g., Haeckel, have suggested making a third or intermediate kingdom. It has been said that the clinical symptoms manifested by animal parasites are not like those produced by an invasion of vegetable microorganisms (bacteria), e. g., as Roger says, "No one would think of speaking of the symptoms manifested by a tapeworm as an infectious condition." That is quite correct, and if all the diseases caused by animal parasites manifested symptoms as distinctly different from the symptoms of the known infectious conditions, the matter of classification would indeed be easy. The above is not true,

however, of all diseased conditions produced by animal parasites. (It is true only of those types of disease produced by animal parasites of a relatively higher and more complex organization). In a number of instances (viz., in the case of animal parasites of a relatively lower and simpler organization) the symptom group is analagous to that produced by bacteria or microorganisms belonging to the vegetable kingdom.

It was held for a long time that pathology furnished a distinct basis for differentiating between vegetable microorganisms and animal microorganisms—bacteria acting by an increase or multiplication of their number, and also by secreting soluble substances which acted as poisons; while on the other hand animal parasites had a mechanical action only. These differences no longer hold, for we know of diseases caused by animal parasites in which the parasites do multiply within the body (e. g., malaria and several types of worms). We also know that some of them secrete soluble poisonous substances (e. g. *uncinaria* or hook-worm—Hare). And again we find that some of our most advanced thinkers and laboratory experts hold that it is quite probable, from new and recent observations, that some of the common diseases which we have classed as bacterial diseases will be proven to be due to animal parasites. In fact Roger, in his recent book on "Infectious Diseases," classifies varicella, vaccinia, and variola as infectious, but thinks that they are of animal origin. (He also classifies amoebic dysentery and malaria as infectious).

The invention of the compound microscope threw a flood of light on this field. By the use of the microscope we were able to observe these minute microorganisms, their appearance, mode of growth, nature, etc. Hence the science of bacteriology sprang into being. This was by far the most scientific and the most advanced step made. And bacteriology (by most of our text-books) is now made the basis of classification of disease, as to infectious and non-infectious processes. It was noted for example, in bacterial diseases: first, that the disease-producing principle increased within the body; second, that the smallest possible imponderable amount of the material would produce disastrous results, depending, of course, on the character of the bacterium in question; third, that an incubative or hatching interval was necessary before it began to manifest symptoms. The study of the culture of these minute plants or bacteria was taken up. Experimental inoculations were tried. From experiments along the lines mentioned above, Koch's three laws were deduced: *First: The suspected microorganism must be constantly*

present in the tissues. Second. *We must be able to cultivate it artificially in a pure state.* Third. *It must be possible to reproduce the disease by inoculation from the pure culture.* This is an ideal and convincing group of requirements, or laws, and certainly proves very effectually that, whenever these conditions are met, the given disease is produced by a special bacterium. The weak point in the case is, that there exists such a large number of diseases which, reasoning by analogy and induction, we would classify as infectious diseases, yet they do not meet, or only partially do so, the requirements laid down above. In some instances the microorganism cannot be grown outside the body. And again, it is often impossible to find an animal in which the disease will take or, if it does take, the disease produced may differ widely from the original one. After considerable research and investigation along these lines we are warranted in drawing the following conclusions:—First, that there exists a large group of diseases or conditions which are spoken of as poisons or intoxications (as proven above). Second, that there is a group of diseases produced by a more highly organized order of animal parasites (hence more easily detected as to their nature; in some instances they are sufficiently large to be seen and handled), whose clinical symptoms are not similar to those of well known infectious processes, and whose action is chiefly local and mechanical in character. Certainly there can be no dispute, argument, or dissension from any quarter when we separate these two groups from the infections. Third, that we have left a large group of diseases which are evidently produced by animate agents, and that are accompanied by a more or less definite group of clinical symptoms. Yet we are unable to say in every case whether the disease is produced by animal or vegetable microorganism. In a number of cases we have not been able to isolate the microorganism, and our aetiological inferences are drawn from deductive methods of reasoning. This third group of conditions is the one that gives us the trouble. As we have proven above, and as we readily see, aetiology alone cannot be used as a means of classification. Symptomatology meets with the same objections. Pathology, or how the organisms act, lost its value as a possible means of classification when we discovered that both animal and vegetable microorganisms in certain cases multiply in the human host; both meet with resistance by tissue products; both manufacture poisonous toxins from the tissues; both may have about the same general group of clinical symptoms.

Bacteriology as a Means of Classification.—

This method appeals with the greatest force to the scientific mind, because the principles underlying it are, in theory at least, rigorous in method and absolute as to the finality of their results. The method however, is a failure, just as the aetiological method was a failure and for the same reasons. Notwithstanding these facts, the bacteriological method is the one at present in vogue, and is adopted by the standard text-books and authors. This of course would force them to exclude, or classify as non-infectious, both amoebic dysentery and malaria—to which we all do not agree. All of the text-books up to two or three years ago classed these two diseases as infectious. Some of them do so yet; others classify amoebic dysentery under diseases due to animal parasites, and malaria under infectious diseases. One of our best and most widely known men on general medicine in the new 1905 revision of his text-book on general practice, classifies amoebic dysentery and malaria under the head of diseases due to animal parasites, and yet when we turn to his article on malaria, in his definition of the term he speaks of it as an "infectious disease." Again, we find that under the head of "Specific Infectious Diseases" he classifies varicella, variola, and some other conditions, which diseases we noted above are now supposed by laboratory workers and scientists (whose opinion we deem worthy of the highest consideration) as being most likely produced by animal microorganisms. *If we knew the exact cause of every disease which comes under our observation clinically; if we could say positively that here on the one hand, in this group is included all possible diseases produced by bacteria, and there, on the other hand, in that group are all conditions which have been proven to be due to causes other than bacteria; under these circumstances we could of course use bacteriology as a basis of classification. And we could say, if you wish; 1. Specific Infectious or Bacterial Diseases. 2. Disease Due to Other Minute Vegetable Microorganisms. 3. Diseases Due to Animal Parasites.*

But we are not in possession of any such knowledge. Therefore in the present state of our knowledge, a complete, satisfactory and scientific classification of infectious diseases from the standpoint of bacteriology is impossible.

Roger, in his recent book on "Infectious Diseases," suggests the following classification: Infections to be divided, first, into "Specific" and "Non-specific Infections." "In specific infections the pathogenic agent suffices to characterize the disease," e. g., "Anthrax, tuberculosis and diphtheria." Non-

specific infections have the following characteristics: 1. "They are due to common bacteria almost constantly inhabiting our mucous membranes and skin, vegetating as simple saprophytes." 2. "Each clinical type may be produced by different agents." 3. "Each microbe may give rise to the most varied manifestations."

The specific infections he sub-divides into four orders according to whether the disease-producing principle is of bacterial, mycotic, animal or unknown origin. (He classifies malaria as a specific infection of animal origin.) All classifications of infectious processes then are necessarily imperfect and provisional. We have to consider aetiology, clinical symptoms and bacteriology. And the best we can hope to do for the present is to offer a temporary method of classification, one that will obviate confusing, paradoxical, and conflicting statements; one that will in a measure serve for clinical and teaching purposes.

We submit the following:

First. We exclude the well-known group of poisons or intoxications (as noted above).

Second. We exclude those conditions brought about by the presence in or on the body of animal parasites of a relatively high order of organization, and which have no distinct and characteristic systemic manifestations or symptoms, which are chiefly local and mechanical in their actions (as noted and explained above).

Third. We note that we have left a large group of diseases which, generally speaking, are accompanied by some or all of the following classes of clinical symptoms: viz., first, "Its epidemic or endemic character;" second, "It is usually self limited;" third, "It affects mainly the young;" fourth, "Its symptoms are suggestive of other diseases known to be infectious;" fifth, "There exists a marked tendency to albuminuria, leucocytosis and anaemia;" sixth, "Accompanying toxæmic processes;" seventh, "High fever, sweats and possibly rashes;" which meet with resistance by the tissues; which have the power of forming toxins; which multiply within the human host; and which are produced or caused by animate agents or microorganisms either animal or vegetable.

To this third group, and to it alone, we would apply the term infectious diseases. Accordingly we would define infection as: *A term applied to a disease manifesting a definite group of clinical symptoms, and accompanied by a pathological change produced within the body by the presence of microorganisms, animal or vegetable.* Or, as some would prefer, simply say: *A pathological change produced*

within the body by the presence of microorganisms, animal or vegetable.

This brings us to the consideration of the second portion of our subject, viz. contagion. As contagion is so evidently part and parcel of, and entirely dependent on, the subject of infection for its very existence even, (and it is desirable that we should so consider it to avoid confusion), manifestly it will not be necessary to take it up in the same minute way. Practically all of the things that we have said concerning the infectious diseases in general are equally true of those infectious conditions to which the term contagion is applicable. We shall simply discuss briefly the origin and history of the term, give a clear definition of it, and point out the scope and limitation of the term, as far as its clinical application and use are concerned. The word contagion is derived from *cum* and *tangere*, meaning to touch upon, to come into contact with. The older writers, as well as some modern writers, always spoke of the infectious or disease-producing material (microorganisms, animal or vegetable) as the "*Contagium*," or as the "*Contagium animatum*," that is, a living contagium. We find, however, that the significance attaching to the common clinical application of the term contagion gradually arose from such considerations as the following: First, the nature of the infectious agent. Second, from a comprehensive study of the methods of egress of the infectious material from the body of the diseased individual, and its mode of ingress into the body of a new host. To illustrate: in a given group of diseases—e. g., measles, smallpox, scarlet fever,—the slightest contact or even close proximity without actual contact is sufficient to produce the disease in a healthy and susceptible individual. This is an example of the highest and purest type of contagion. This is the standard or rule for classifying diseases into contagious and non-contagious conditions. This is the classification of common parlance, the one first adopted and most generally used. This is what the layman means when he says that a disease is "catching." He will ask you, "Doctor, is it catching?" Now on the other hand, conditions like Asiatic cholera and typhoid fever, where the microorganism or disease-producing principle is thrown off from the diseased individual by the bowel route (most commonly), and must in a roundabout way find its way into and contaminate drinking-water, milk, green vegetables and other substances used as foods by healthy individuals, the condition was spoken of as non-contagious. As, however, we became more intimately acquainted with the

cause of disease, and were enabled to trace out in most cases exactly how the cause gained entrance into the system, we saw that the above rule would not suffice. From these apparently disconcerting facts arose a great deal of unnecessary confusion as to the proper and legitimate use of the term contagion. Knowledge obtained from bacteriological studies, the study of small animal parasites, culture and inoculation experiments, soon taught us the lesson and taught it well, that the above simple rule was inadequate to the occasion and would not do as a method of classification. Certain diseases, according to the above method, would, under a given set of circumstances, be classed as non-contagious; and again, under different circumstances they would have to be classed as contagious. Or a given text-book would speak of a disease as non-contagious, and the next year's revision of the same book, by the same author, would speak of the disease as contagious. This is confusing to students. Tuberculosis was formerly classed as non-contagious, so also was typhoid fever. (Now both conditions are spoken of as contagious under certain circumstances). One of our recent text-books speaks of tuberculosis as "slightly contagious" and as proof thereof cites the following incident: A German midwife who was suffering from advanced pulmonary tuberculosis was in the habit of blowing into the mouths of the children she delivered to clear away the mucus; several of the children so treated died as a result of tubercular invasion in a year or so. In speaking of this incident before a class of medical students one of them remarked,—“Why, Doctor, that was direct infection.” Of course it was; but in every case of contagion, if we knew the exact mode of entrance of the microorganism, whether it sailed through the air over a space of several intervening feet on a particle of dust or a small fragment of epidermis, or whether a typhoid bacillus, for example, slides into the unsuspecting stomach safely concealed in a succulent oyster, it makes no difference; in either case as soon as the microorganism implants itself the individual is infected. It will be possible for us to avoid confusion concerning the use of the term contagion if we will keep in mind the following conclusions: 1. *That infection is the parent term; that it should include all possible contagious conditions (the statements of some text-books to the contrary notwithstanding.* 2. *That the difference is one of degree and not of kind.* 3. *That the term contagion with reference to a given disease is an unnecessary one, and could be dis-*

carded without detracting one particle from our scientific knowledge or understanding of disease. 4. *That it is simply a clinical term coined to express the ease, readiness and facility with which certain diseases are transmitted.* 5. *That its clinical application is necessarily a variable and confusing quantity, because of the circumstances attendant on our ever increasing knowledge of disease and its methods of transmission.* 6. *That we do not recommend the use of the term at all, and if we do use it, we should never lose sight of the fact of its provisional, clinical, or subsidiary nature.* 7. *We would suggest that contagion should be defined as—A readily or an easily transmitted infection.*

DISCUSSIONS.

Dr. W. F. Boggess, Louisville: It was with a feeling of regret that I received the notification of the secretary that I was expected to open the discussion on this paper. The regret arose from the fact that I knew that the paper would be so scientific and practical that it would leave nothing for me to discuss.

That there is a very great need for a better classification of diseases in our text books is not better known to any one than it is to the teacher of medicine. The classification of the infectious diseases, the classification of the Bright's diseases; the classification of the diarrhoeas of infancy; the classification of the anemias of infancy; the classification of the diseases of the blood, are all unsatisfactory. Just as Dr. Jenkins said, there is not a text book that agrees with another text book as to what diseases we shall term infectious and which non-infectious.

The first honor student of one of our schools in Louisville, one of the brightest and brainiest boys, went to Nashville to take a state board examination for license. He came back, and I asked him what trouble he had had. He told me that he thought that he had received a pretty good training in medicine, but “why did you not tell us something about zymotic diseases,” he said. “The first question on the list was ‘What is a zymotic disease? Name some of the zymotic diseases.’ For such a question to be asked meant that the examiner needed a better preliminary education as well as a better medical education.

Now gathering from Dr. Jenkins' paper a succinct definition, a diseased condition resulting from the presence and proliferation of some septic agent, either animal or vegetable, is known as an infection; not only the presence, which does not produce disease, but the proliferation of bacteria are necessary to produce the infection.

The laws of infection, or Koch's law, are at best imperfect. If it does fulfill the three re-

quirements of the law, the disease is undoubtedly an infectious disease; but there are many diseases that do not fulfill these three requirements. The known laws are these: That the infection is found in every case; that it is capable of pure cultivation outside of the body; that it is capable of producing that disease in every other body into which it is injected.

The largest list of infectious diseases are those which we term septic infection. Clinically there are conditions that fulfill the seven things outlined by the doctor.

1. That the disease is epidemic or endemic.
2. That it is usually self-limited. That is a term I do not like to use before a student body or a medical society. There is no term so hurtful as this. It is not well understood, although it is a good term if used properly; but if you use the term merely to say that the disease must run its course it had better not be used at all.
3. That it affects mostly the young.
4. The symptoms are suggestive of other known infections.
5. There is a tendency to abnormal leucocytosis and anemia.
6. The accompanying toxic processes resemble those of other known infections.
7. That high fever, sweats and oftentimes rashes accompany the disease.

These are clinical symptoms that give us the right to say that those diseases whose infectious agents are not demonstrable under Koch's law are really infectious diseases. The classification is broadening each year. Each year we have a new disease added to the list. In the past few years acute articular rheumatism has been classified as an acute infectious disease, because it fulfills nearly all these rules laid down for an infection. Pernicious anemia, which at one time was termed a blood disease, is now classified as an infectious disease, and the same is true of many other diseases.

It would have been very interesting, if time had been allowed Dr. Jenkins, to have had him speak of the modes and methods of the entrance of the infection into the body, and to show the reasons why all those who are exposed to the infection do not contract the disease. Of course, that would have necessitated discussing the pathology of these diseases, but it would nevertheless have been interesting.

* * * *

Dr. Jenkins, closing the discussion: My paper was merely intended to call attention to the fact that we have not as yet any means of classifying these diseases. The paper would have exceeded the time limit if I had attempted to discuss the question of immunity and the mode of transmission of these diseases. I attempted to lay bare

the chaotic condition now existing, and not to detail the pathology of infection. Ask any physician for a definition of either of these terms, and then note the confusion that besets him, even teachers of medicine. We must take into consideration the etiology, pathology, bacteriology and symptoms in order to make a classification that is of any value. Our modern textbooks are unscientific and unsatisfactory, and they have made it absolutely impossible to evolve any sort of classification that is of any real practical value.

In speaking before the laity or students we would say that the term contagion is a subsidiary one; that infection is the parent term. Infection is a pathologic change produced in the body by the presence of micro-organisms, animal or vegetable. A contagious disease is a readily and easily transmitted infection. We must be careful in our clinical teaching when making these distinctions, because they are quite likely to give rise to error and confusion.

A UNIQUE CASE OF TUBAL PREGNANCY.*

By J. ROWAN MORRISON, M. D., Louisville, Ky.

I wish to report a case of what I take to be tubal pregnancy, which appears to me to be rather unique. Those cases of tubal pregnancy that are not operated on, and which do not cause the death of the patient by shock or hemorrhage, may terminate in several ways by the development and delivery of the foetus; or it may die and become mummified or converted to a stony substance—lithopaedion. More frequently after death of the foetus the mass is surrounded by adhesions and finally thrown off through the bowel; rarely through the abdominal wall. This latter occurred in this case.

A. S., Aet. 28, good family history. No children — no miscarriages — menstruation up until this trouble began was regular and not painful. Five years ago, which was two years after she was married, she ceased to menstruate, and was told by her physician that she was pregnant. Her breasts enlarged and milk appeared in them. At the beginning of the fourth month of her pregnancy she was taken with violent bearing down pains which continued for several days; during this time a small quantity of blood passed from the vagina. In a few days the pains became less severe, but continued for over a week, and for the next five months she had pains from time to time, sometimes severe enough to lay her up for sev-

*Read before the Kentucky State Medical Association October 18, 1905.

eral days. She also passed some blood from the vagina several times during this interval.

She was seen by several physicians, some of whom told her she was pregnant, and others that she had a fibroid tumor of the uterus. At the tenth month after the cessation of menstruation, her condition continuing the same, she was taken to a very skillful surgeon who put her on the table to operate for a fibroid tumor; but after the abdomen was opened the tumor was found to be so adherent, and the patient's condition becoming very bad, she was removed from the table without finishing the operation. The abdominal incision never healed entirely, but remained open for about two and a half inches over the site of the tumor, and discharged the foulest smelling material from the disintegration of the tumor. The woman remained very weak for a long time, but finally was able to get around.

About two years ago she came to me, and said that she was so miserable that she would undergo an operation for the removal of the tumor even though it cost her life. I advised against operation at that time, but gave her a deodorant dressing, and put her on constructives. I saw her only once or twice after that time, until last February, when she came to me saying that a lot of bones were coming out of her abdomen. I found a mass protruding from the old incision which upon removal proved to be several pieces of cranial bones and the long bones of the upper and lower extremities. These bones were entirely devoid of muscle or periosteum and were surrounded with a horrid smelling substance, resembling meconium. The bones seemed to be from a foetus of about four months' development. The next day I had the woman chloroformed, and removed from a cavity in her abdomen, as large as a baseball, a lot of bones consisting of ribs and cranial bones. I then scraped the cavity with a dull curette, and washed it out with an antiseptic solution and finally packed it tightly with gauze. The next day when I removed the packing a flat piece of cranial bone came away with it, and there followed into the cavity some fecal matter. This continued to discharge from the wound for ten days, but the woman made an excellent recovery, and at the end of three weeks the cavity was practically obliterated, and only discharged a little clear fluid. She has continued to improve, and is now as strong as she ever was.

About a year after the first operation she began to menstruate, and has done so uninterruptedly ever since, no pain with menstruation, which is normal in every way. There has never been any discharge of foul smelling material from the vagina.

There is a mass in the pelvis, extending about an inch and a half above the pubes. The

depth of the uterine cavity, as measured by several, is two inches. That these bones did not come from a dermoid cyst, I think is proven by the character of bones and the history of the case.

BOOK REVIEWS.

DISEASES OF INFANCY AND CHILDHOOD.

By L. EMMETT HOLT, M. D., Sc., D. L. L. D.

The third edition of this masterpiece has just been issued from the press of the Appletons. It is given to few men to leap at once into the position which Holt occupies, for he has written not only the best book on "Diseases of Infancy and Childhood," but one that takes rank with the best books on any subject. He has utilized the enormous clinical experience at his command and supplemented it with long training as a teacher which has enabled him to select his material and proportion it according to the needs of the physician. That he has attained this result is shown by the increasing demand for his work. The third edition has enabled him to review and bring up to date all the various phases of diseased conditions met with in the early years of life. Many of the articles have been entirely rewritten, while some new subjects have been introduced to make the work more complete.

The chapters devoted to nervous diseases, and especially cerebro-spinal-meningitis, have been largely rewritten and amplified. The chapters on "Diarrhoeal diseases" give the latest views on the Shiga bacillus, tempered with a judicious conservatism.

Taking it all in all there is no work in the English language superior to this text book.

PHILIP F. BARBOUR.

* * * *

THE PHYSICIAN'S POCKET ACCOUNT BOOK.

By J. J. TAYLOR, M. D.

This book has 200 pages, bound in leather. Price only \$1.00 postage paid. Medical Council, Philadelphia, Pa.

This little work is one of the best that has been upon the market for ready and perfect record. It is a simple method of keeping accounts, and appeals to the busy physician who does not employ a regular book-keeper.

The arrangement is all that is required as a legal register, and its simplicity adds to its value. I do not think that physicians can make a mistake in trying this little book, and I believe that if once used they will always appreciate it.

The average busy physician is a poor man, and anything that simplifies and yet legalizes his accounts is of great value. W. F. B.

PROGRESS IN GENERAL MEDICINE.

Under Charge of J. A. FLEXNER, M. D., Louisville, Ky.

Deutsche Medizinische Wochenschrift,
Feb. 1, 1906. No. 5.

Concerning the new method of testing the function of the stomach during digestion without the use of the stomach tube, by Dr. F. Kaliski, Breslau.

The author begins his article with a review of the objections to the use of the stomach tube for diagnostic purposes and commends rather highly the method introduced by Sahli of Berne whereby the motor activity as well as the acidity of the stomach is tested by means of the appearance in the urine of certain products introduced into the stomach which have been enveloped in a membrane which Sahli calls desmoid or the desmoid capsules. This membrane was demonstrated by Adolph Smith of Dresden to be only soluble by the aid of pepsin in combination with free hydrochloric acid and is indifferent to the secretion of the pancreas and lactic acid. It is really the caecum of the sheep and occurs in commerce under the name of gold beaters skin.

The tests have been made with capsules of about three grains of potassium iodide wrapped in desmoid or methylene blue pills, each containing five centigrams, about one grain each of methylene blue and extract of licorice. It is a well-known fact that the iodide of potassium is easily demonstrable in the saliva by means of starch paper and nitric acid, whereas the methylene blue is eliminated by the urine and not by the saliva. At times the methylene blue is eliminated by the urine in a colorless form called chromogen. Where this occurs the urine may be heated with a small amount of glacial acetic acid that brings out the blue color promptly.

The author's conclusions after a series of investigations where methylene blue pills were used were as follows: "In hyperacidity a deep blue color will be found in the urine after four to seven hours. For a normal acidity the color appears in seven to twelve hours; the first urine voided is faintly colored. For subacidity or motor insufficiency the reaction only appears on the next day."

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Deutsche Medizinische Wochenschrift,
Feb. 22, 1906, No. 8.

Cultural Demonstration of the Typhoid bacillus in Faeces, Earth and Water with the aid of Malachit Green, etc., by Prof. Loeffler, from the Hygienic Institute, University of Griefswald.

Loeffler states in his article that since 1888 in the Hygienic Institute of Griefswald he and his assistants have been endeavoring to develop a method by which the typhoid germ could with certainty be demonstrated in faeces, earth and water. As easily as the organism is found in the internal organs of patients dead of typhoid the difficulties of recognizing it in mixtures containing especially the colon bacillus have been hitherto unsurmounted in spite of the many efforts at developing special media for this purpose.

In the discoveries of the properties of Malachit green a really great advance in the bacteriology of the typhoid bacillus seems to have been attained for under ordinary conditions and when the "intestinal organisms do not greatly outnumber the typhoid, the growth of the colon and other bacteria are completely restrained while the typhoid grows in a perfectly characteristic way and yields colonies which are easily recognized by the naked eye."

The Malachit used is the form known as Malachit green 120, and is obtained from the Hochster Farbwerken. It is added to an agar or fluid bouillon preparation using about two and a half cubic centimeters of a two per cent. solution to each one hundred cubic centimeters of agar.

In a medium containing .75 of one per cent. of Nutrose without the addition of peptone to which two and one-half cubic centimeters of a two per cent. green solution to one hundred cubic centimeters are added, the typhoid bacillus grows in a very characteristic way and in this medium is very easily distinguished from other organisms.

The method promises to be very useful in the studies of faeces and earth. In highly contaminated sewerage, however, it does not promise to be more helpful than other methods have been, but the importance of the discovery seems to the reviewer to be very great, and Health Officers and Laboratories of Research where the question of the diagnosis of typhoid in suspicious cases arises should unquestionably thoroughly test the suggestion from this eminent author.

* * * *

The Effect of Eosin upon Tetanus Toxines and Tetanus in Rats and Guinea pigs, by Simon Flexner, M. D. and Hideyo Noguchi, M. D., Rockefeller Institute for Medical Research, New York, from the Journal of Experimental Medicine. The Authors state

"Study of the action of certain photo-dynamic substances upon living cells and toxins has brought out highly interesting facts," and if their Researches upon the Effects of Eosin in Tetanus are applicable to the human being there can be no doubt of the importance of these studies.

The experiments were made with the Tetanus Toxine as well as with the threads containing tetanus spores. The effect of Eosin which was used in 5 per cent. solution introduced under proper conditions seemed to be able to save a certain number of lives of the experimental animals and in all cases when introduced in the immediate neighborhood of the infection to delay the appearance of the symptoms. The fatal constituent of the tetanus toxine known as tetano spasmine has been found amenable to the favorable effect of eosin as well as the living germs. Either the germs or the toxine employed was fatal in four days when administered in a dose of .0025 of a cubic centimeter, the first symptoms appearing in 24 hours. When the eosin and the toxine have been mixed and kept at the body temperature for some time beforehand, some of the experimental animals were saved and in others life was considerably prolonged, showing the inhibiting action of the eosin upon the poison.

In order, however, to imitate natural conditions more closely silk threads carrying tetanus spores but no toxine were introduced beneath the skin of the right thigh. Some of the animals were untreated while others were treated in various ways such as the injection of eosin around the spot and the injection of eosin in other parts of the body.

The results of this series of experiments demonstrates the power of eosin to destroy or modify the power of the poison in the body when it is brought into direct contact with the tetanus spores of the bacilli themselves. Where the eosin is injected in other portions of the body the inhibiting effects is very slight.

The authors conclude their experiments with the statement: "that the result of their experiments shows that even in the highly sensitive guinea pig tetanic symptoms may be restrained provided the eosin is brought into close relationship with the developing tetanus poison before it is fixed by the nerve tissues or reaches the general circulation.

* * * *

The Physiology of heart Block in Mammals with especial Reference to the Causation of Stokes-Adams Disease, by Joseph Erlanger, from the Physiologic Laboratory of the Johns-Hopkins University. *Journal of Experimental Medicine* Vol. 8, No. 1.

The author introduces the subject with a slight review of the theories regarding the "path taken by the impulse which normally causes the various chambers of the heart to beat." Two theories regarding this have been held, the so-called neurogenic and the myogenic theories. According to the first theory the impulse arises in - - - - ganglia of the heart and is distributed to the muscle cells through the medium of the nerves. According to the more recent or myogenic theory the impulse arise in the - - - - rhythmical musculature of the great veins and is propagated to the chambers of the heart after the manner of a peristalsis.

The discovery by His, Jr., of the auriculo-ventricular bundle has supplied the myogenic theory with the only lacking element for the demonstration of the soundness of this view, since this bundle of muscle tissue joins the septum of the auricles with the septum of the ventricles. Erlanger has shown by compression, varying in degree, of this muscle bundle of His that varying degrees of so-called heart block may be produced.

It may be stated here that the cardinal symptoms in Stokes-Adams disease is this so-called condition of heart-block a condition characterized by a totally different rhythm between the auricular and ventricular beats. This arrhythmia may vary from two auricular to one ventricular beats as high as four or even more under complete block.

It may be stated in this connection that thus far the only autopsy finding which corroborates Erlanger's work is reported by Stengel, Jr., in a recent issue of the *American Journal of the Medical Sciences* where a growth situated in the neighborhood of the tricuspid valve and involving the bundle of His destroyed the rhythmical pathway. Again, syphilis appears to bear a distinct relation to this disease since a certain percentage of the cases have been distinctly benefited by anti-syphilitic treatment. The use of atropia to ward off the attacks of syncope which accompany the condition seems to have had some favorable results in the hands of the experimenter.

The author's conclusions as to the results of his studies are as follows:

"First, all of the cardinal symptoms of Stokes-Adams disease may be duplicated by heart block resulting in a lesion in or near the auriculo-ventricular bundle of His and by this alone.

Second, No typical cases of Stokes-Adams disease has been described in which heart block might not have been the cause of the trouble.

Third, it can be shown that all the cases of Stokes-Adams disease which have been stud-

ied by sufficiently accurate methods are cases of heart block.

Fourth, it would appear that heart block without and with syncopeal attacks are stages of the same disease process."

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Spinal Anaesthesia by Magnesium Sulphate. A report of Seven Operations performed under its influence by H. A. Haubold, M. D., and S. J. Meltzer, M. D., *Journal of the American Medical Association*, March 3, 1906.

The authors refer to several series of experiments on animals which were carried on at the Rockefeller Institute for Medical Research by Meltzer and Auer. These experiments have shown the certainty with which animals could be successfully anaesthetized and subjected to considerable surgical procedures under the influence of the intraspinal injections of magnesium sulphate solutions. The results of the animal experimentations showed the greatest danger on the side of the magnesium sulphate to result from re-spiratory paralysis, heart and blood pressure, unless the dose was too large, remaining practically unaffected, and where artificial respiration is persistently carried out death in the experimental animal does not ensue.

They were led to the use of the magnesium salts in the human being directly as a result of the favorable results obtained in monkeys. The dose used in those animals was about six centigrams to one kilogram weight of the animal. They state that the "monkey which an hour before would bite and fight everyone who came near him would lie perfectly limp offering not the slightest resistance. The animal would lie in that state for many hours, but on the following morning was fully recovered." A dose four times as large as the one above mentioned proved fatal. The authors were led to the use of magnesium sulphate in human surgery by these considerations and the further fact that magnesium salts are not foreign elements in the body, that the dose necessary to produce complete anaesthesia was only about one-fourth of the fatal dose and that the danger seemed limited to the impairment of the respiratory function, and the further fact that the magnesium sulphate solution may be easily and completely sterilized by heat, is easily obtainable everywhere and subject to no patents like many of the synthetic products which have been used. Their operations included perineorrhaphy including the sphincter and curettage, dilatation of the cervix, laparotomy for the removal of the appendix and the right ovary and tube, correction of mal-union of Pott's fracture of the right leg, a Bassini for the relief of femoral

hernia and an operation for a large intro-muscular abscess of the right thigh.

Five cubic centimeters of twenty-five per cent. sterile solution of the magnesium sulphate was the amount used. In all of their cases local anaesthesia was more or less complete within an hour and a half or two hours after the injections. Small amounts of chloroform were used in order to produce complete anaesthesia. In some of these cases a similar amount of spinal fluid was allowed to flow before the injection of the magnesium sulphate solution and in others the spinal canal was irrigated several times after the operation in order to remove the magnesium sulphate solution remaining. This latter procedure seemed to benefit the post-operative condition of the patient.

As far as these seven cases permit conclusions the authors consider the following statements justifiable. "Intra-spinal injection of magnesium sulphate is capable of producing anaesthesia, and if carried out with caution seems to be a safe anaesthetic. The following plan seems best at least for the present, to inject about one cubic centimeter of the twenty-five per cent. solution for eighteen or twenty pounds body weight and wait for two hours. It is probable by that time that the analgesia will be sufficiently advanced to permit operation on any part of the lower half of the body. A small dose of chloroform, however, should be administered to divert the patient's attention and to hasten and complete the anaesthesia. Immediate washing of the spinal canal should follow the operation in all cases."

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Pneumonia by W. J. Galbraith. *Journal of the American Medical Association*, Feb. 10, 1906.

Dr. Galbraith refers to his experience reported about two years ago in the treatment of pneumonia which consists in the administration of massive doses of quinine early in the disease and seems to consider the effect as largely antitoxic. In conjunction with quinine the use of iron is also strongly urged.

The article includes a report of cases by Dr. Custer of Nogales, Arizona and Drs. Carpenter, Butzow, Haney and Dudley, Cananea, Mexico. The conclusions are as follows: "The first attention on entering the hospital is a warm bath followed by a calomel or phosphate of soda purge. The initial dose of quinine is administered in one to three hours later provided the stomach is not disturbed. If the temperature has reached 105 or over, 60 to 75 grains of quinine are given as the in-

initial dose followed in one hour by usually one-half the first dose. If the temperature reaches between 103 and 104, however, 40 to 50 grains are given as above. If a lower temperature is found 40 grains may be given. This is the smallest dose that I would advise as an initial one. I begin the administration of the tincture of iron in three or four hours after the second dose of quinine is administered in doses ranging from ten to fifteen minims every two to six hours, depending on the condition of the pulse. In the event of the temperature rising to 101 or 102 after it has reached the normal or subnormal mark, I administer from 40 to 50 grains of quinine at one dose, and continue the iron in 15 minim doses every three or four hours.

I strongly advise against any compromise in the way of dividing the doses of either quinine or iron during the active pneumonic stage. Occasionally the stomach will become rebellious, but as a rule this may be overcome by chloretone or pepsin and guaiacol." The effect on the mortality in the author's region is certainly striking, but whether such large doses of quinine are absorbed is open to question. The absence of cinchonism seems to indicate that much of the quinine is not absorbed.

Why not administer the quinine bi-sulphate hypodermically? In this form of administration, the writer is of the opinion that he has seen the favorable effect of quinine in croupous pneumonia without distressing the digestive tract.

REPORT OF LIBRARY COMMITTEE, JEFFERSON COUNTY MEDICAL SOCIETY.

Mr. President and Fellow Members:

About one year ago I endeavored to secure the establishment of a department of current medical literature in the Louisville Free Public Library. The proposition, although presented in an unofficial way, received the most respectful attention. The result of this movement developed the fact that however important such a step would be, and however modest the request was (\$150.00), that it would be impossible to grant it.

First, because the available funds are not sufficient to permit a special appropriation for a special purpose;

Second, because if such a request was granted it would expose the Board of Trustees to

an endless number of special demands from special sources.

Therefore, the idea of securing this department through the library was abandoned.

Several plans for creating the necessary funds were thought of, but finally the idea suggested by my co-worker, Dr. James B. Bullitt, to secure this fund through the Jefferson County Medical Society, was adopted. The committee, consisting of Drs. A. O. Pfingst, James B. Bullitt and August Schachner, began to solicit subscriptions of five dollars per year for two years, at the end of which time it was hoped that the library, then in its new quarters, would be able to perpetuate the scheme unaided. This however, upon the advice of the librarian was modified in such a way that the profession would perpetuate the scheme, the works to remain the property of the profession, thus forming a nucleus for a future library.

About this time the Board of Trustees of the Louisville Free Public Library lost a member by the death of Dr. John A. Ouchterlony. This committee at once circulated a petition among the profession, which was presented to Mayor Charles F. Grainger, to appoint if possible some medical man as a successor to Dr. Ouchterlony. Mr. Grainger appointed Dr. Chester A. Mayer. Dr. Bullitt and myself called upon Dr. Mayer, as we did upon almost every member of the Board. Dr. Mayer, while not definitely expressing himself, we believed was optimistic to a degree that we could hardly endorse.

At the last meeting of this society I am informed that a motion was introduced to dissolve this committee and return the subscriptions, action upon which was deferred until the present meeting. About this time this committee thought it proper to again personally see Dr. Mayer and obtain if possible some definite plan that he might have formulated. In addition the following communication was sent to Dr. Mayer:

Dr. Chester A. Mayer,

Trustee Louisville Free Public Library.

Dear Doctor:

The Library Committee of the Jefferson County Medical Society, having in readiness a fund for the establishment of a Medical Department in the Louisville Free Public Library and not desiring, if possible, to conflict with any ideas you may have in the same direction, has decided to communicate to you definitely our views concerning this movement.

It is our firm belief, however attractive an appropriation may be, that under the present

conditions an appropriation from the Trustees of the Louisville Public Library would be an impossibility, because:

First, the city of Louisville has not yet accepted Mr. Carnegie's second offer, owing to the city's inability to financially accept the same and if accepted it will be devoted to branch libraries.

Second, The Mayor and the City Council, through whom the money is obtained, have officially determined upon a 3 per cent. levy for the library, the ordinance reading that the library shall have not less than 2 1-2 per cent. and not more than 4 per cent.

Third, the Board of Trustees has been considerably hampered by an insufficient levy in order to meet expenses; therefore, we believe that however desirable, it would be simply impossible to have the request for a special fund for a special purpose for a special fraternity granted when there is not enough money now on hand for the library.

The Committee, however, in deference to your wishes, concludes to remain quiescent for two library meetings that you may have what we believe ample time to determine the feasibility of your ideas, and if the feasibility cannot be demonstrated by that time we feel that we should recommend to the Jefferson County Medical Society the further prosecution of the Committee's plan, which in short, is buying the journals, books, etc., out of the fund already on hand and their housing by the library, the materials to remain the property of the profession.

At the next meeting of the Jefferson County Medical Society, which will be February 20th, this is to be made a special order of business and we would therefore, ask you to kindly mail the committee a written statement before the above-mentioned meeting, in order that the committee may definitely present the matter for the society's consideration.

I communicated with Dr. Mayer this morning by telephone, and from this conversation could not get any information that would make me change my views or believe that Dr. Mayer's plan, whatever it may be, is feasible even though Dr. Mayer is as optimistic as ever. The committee would therefore recommend after about a year's labor the adoption of the committee's plan, which is the purchase of the material by the profession, the housing of this material by the library, but the material to remain the property of the profession. This we believe is a perfectly fair proposition to the profession and the library alike, and we feel certain that if any proposition will be accepted by the library it will be this one. Therefore, if this profession wants a medical library it is

up to the profession to create it, and if the profession does not create it we feel that it will not be created. To say, as some have said, that they are entitled to it on the ground of being tax payers is simply absurd. Tax payers are taxed for a general library which they get, and since they are not taxed for a special library, they have no right to demand a special library out of a general library fund.

In conclusion, the Chairman of this committee would suggest that it is all nice enough to talk about the donation of a fund for a grand library, but the reason the many efforts that in the past have been dedicated to this and similar movements have failed, is because every plain, modest and common sense proposition was usually smothered by one or more grand substitutes, and substitutes that were as grand as they were hazy and as hazy as a London fog.

This is the plain story of the past, and such a story is simply a story of pure vandalism. Let us for once lay our grand ideas aside and make a start, even though it is a modest one.

I therefore move the adoption of the committee's plan; namely, to present to the Board of Trustees the proposition of buying the periodicals, etc.

The motion above mentioned was lost by one vote, a number of the members failing to vote either way. Thereupon another motion by Dr. Frank, that the fund be dissolved and the money returned, was put to a vote and this was lost by one vote.

The following members of the Jefferson County Medical Society subscribed and paid five dollars each to the Library Fund of the Jefferson County Medical Society:

Dr. Zimmerman,	Dr. Flexner,
Dr. Ireland,	Dr. Chenoweth,
Dr. Guest,	Dr. Stucky,
Dr. Moren,	Dr. Cheatham,
Dr. Kennedy,	Dr. Frazier,
Dr. Bloom,	Dr. Roberts,
Dr. Cecil,	Dr. Leavel,
Dr. Kiefer,	Dr. McMurtry,
Dr. Ferguson,	Dr. J. R. Wathen,
Dr. Wm. H. Wathen,	Dr. J. E. Hays,
Dr. Bullitt,	Dr. W. Ed. Grant
Dr. Curren Pope,	Dr. O. C. Dilly,
Dr. Sauter,	Dr. Schachner,
Dr. Satterwhite,	Dr. Leachman,
Dr. Speidel,	Dr. O'Connor,
Dr. J. B. Richardson, Jr.,	Dr. Dabney,
Dr. Lucas,	Dr. Cartledge,
Dr. Abel,	Dr. Boggess,
Dr. Ray,	Dr. H. H. Grant,
Dr. Falconer,	Dr. Fink,
Dr. E. Y. Johnson,	Dr. J. R. Morrison,
Dr. Philip F. Barbour,	Dr. F. Brandeis.

KENTUCKY MEDICAL JOURNAL.

BEING THE

JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION

PUBLISHED MONTHLY UNDER SUPERVISION OF THE COUNCIL

Subscription Price One Dollar per Year

CHAIRMAN OF COUNCIL

DR. J. GARLAND SHERRILL

SECRETARY-EDITOR

DR. JAMES B. BULLITT

ASSOCIATE EDITORS

DR. J. A. FLEXNER

DR. IRVIN ABELL

DR. ADOLPH O. PFINGST

THE NOSTRUM EVIL.

In the Journal A. M. A. of January 27th is an article on this subject from the pen of Dr. J. M. Anders. It should be read in conjunction with the recent article by Dr. Billings by every physician in Kentucky. This subject is up and will remain up until it is finally settled.

"Before we can proclaim war on patent medicines with energy and a clear conscience, it will be necessary for us as physicians to rid ourselves of the proprietary nostrum evil by ceasing to prescribe preparations that are nothing more nor less than patent medicines. Before medical journals can criticise newspapers for carrying patent medicine advertisements, they must themselves refuse advertisements of similar preparations, even though these be dignified with the name of proprietary medicines."

Dr. Anders concludes his article as follows:

"Finally, the profession must adopt a general plan of action if it would hope to execute a winning fight against the great wrong, and I would respectfully submit a series of lines of attack to be included in such a plan:

1. Agitation through co-operative effort on the part of high-class journals, medical writers and medical organizations with a view to enlightening the profession and elevating the standard of the profession.

2. The enlightenment of the public by the agencies noted under 1 with the aid of the influential lay press, which has already rendered excellent pioneer service.

3. Medical schools and medical journals should aim to educate physicians regarding official preparations and proprietary articles whose composition is known and of proved usefulness.

4. The proper training of medical students in the science and art of pharmacy, including prescription writing.

5. Co-operative effort on the part of physicians and scientific pharmacists is to be encouraged, e. g., such as the admirable work that

is being carried out by the Council on Pharmacy and Chemistry of the American Medical Association.

6. Continued exposure of "patent medicine" and nostrum methods and the disclosure of the composition of these preparations by the lay and medical press (to the public) is urgently needed.

7. The creation of a professional sentiment to the effect that trade-marked nostrums are unworthy of being prescribed.

8. Attempts to emancipate a shackled medical and lay press must be persistently maintained.

9. The enactment of appropriate legislation—a line of action in which it will be hard to demonstrate practical results in the immediate future, owing to powerful organized opposition

10. The furtherance of the aims of the upheaval in progress by completing the organization of the medical profession of America in accordance with the plan proposed by the American Medical Association in 1900."

Before the medical profession attempts to cast out the mote from its neighbor's eye (the nostrum evil in its relation to the lay public and the lay press), it must first pay some attention to casting out the beam from its own eye (the proprietary preparation evil in its relation to the profession and the medical press).

The time will come, and let us hope soon, when the Legislature of Kentucky will be called upon to pass a law of such a nature that many of the nostrums will be definitely excluded from sale in the State, and that all others will be compelled to give on the bottles definite statements of the contents, these statements to be verified and controlled by proper authorities. Indeed, such a bill has been introduced before the Legislature now in session. But it has scant chance of becoming a law. The allied patent medicine interests, represented by the Proprietary Association of America, with its iron grip on the throat of the lay press, on the one hand, and the present lack of harmony in the profession itself and the medical press, on the other, almost insure the failure of such a bill at the present time. Recognizing this, there has been no concerted effort on the part of the profession of Kentucky looking to the support of this measure.

For the present the campaign must be amongst the doctors rather than the laity, the medical press rather than the lay press. The campaign must be one of education and have for its object the production of a pronounced and active sentiment.

When the time arrives that the physicians of Kentucky demand of all medical publications coming into their hands that they be free of

exploitation of objectionable and questionable articles, then the time will have arrived for proceeding with a concerted and organized attack on the exploitation of nostrums to the lay public and through the lay press.

In this connection the subjoined account of "Patent Medicine Legislation in Kentucky," taken from the *Journal A. M. A.* already quoted above, will be found of much interest. In reading it let us not overlook this paragraph:

"If the doctors in the United States did not prescribe proprietary medicines one half of the manufacturers of these remedies in this country would go out of business inside of twelve months."

As the editor suggests, learn this by heart if possible, and recite it to yourself every morning as you start out for your daily rounds.

"PATENT MEDICINE" LEGISLATION IN KENTUCKY.

Representative Johnson of Franklin County has introduced a bill into the Kentucky Legislature similar to the one adopted last year in North Dakota, providing that the formula of "patent medicines" be printed on the package. As far as we have been able to learn, the newspapers are not devoting any space to urging the passage of this law, nor do we hear of any efforts on the part of physicians or of the public to back up Representative Johnson in his efforts to check the "patent medicine" fraud in Kentucky. We do have evidence, however, that the "patent medicine" men are awake and very, very active. The effective principle underlying the "red clause" idea is being utilized.

We have been favored by a certain newspaper in Kentucky with letters which it has received from "patent medicine" firms and their agents, which make interesting reading and prove conclusively that even in Kentucky the nostrum men have, or think they have, their grip on the throats of the newspapers. Among these letters is a three-page letter from the Peruna people, signed—by rubber stamp—"S. B. Hartman," from which we quote:

"The millions of users of proprietary medicines make no demand for such a law. They have it in their power to use or not use the medicine. They are at least presumed to have enough common sense to know whether an article does them good and cures them and whether it does not. And most undoubtedly if it does not cure them they can at least protect them from its use, because they know the name of the article under which it goes."

This sounds extremely plausible, and certainly should be enough to convince any editor of the bigotry of those who would not allow the public to be their own judge as to whether they should take "patent medicine" or not. Several paragraphs are devoted to the editors of the

Ladies' Home Journal and of Collier's Weekly. Dr. Hartman charges Mr. Bok with making a fight on "patent medicines" out of spite because one of the "patent medicine" firms has sued the Ladies' Home Journal. He says of physicians:

"These are the people who are crying for formulas on proprietary medicines, but yet if they are called on themselves to explain to the patient what they are giving them they would absolutely refuse to do so.

"Is this justice? Is this equity? In this free country of ours to preach a doctrine and to refuse to comply with this doctrine?"

"Dr." Hartman does not know, evidently, that the doctor's prescription is on file, to be referred to by the courts, if necessary.

"We would be pleased to have you take this up, immediately, with the senators and representatives of your State, either in person or by writing them a letter calling their attention to the fact of the injustice and autocratic spirit of this act."

One of the letters is from a "patent medicine" advertising firm and the writer is very pointed in his remarks regarding what will happen if the bill is allowed to become a law:

"When a similar Bill was passed in North Dakota last year, we were obliged to cancel all our Advertising Contracts in North Dakota, and as other agencies did the same thing—the newspaper people of North Dakota are standing the loss that was brought about by some Country Doctor losing a fee on account of one of his patients buying a bottle of Castoria. These Country Doctors are so narrow between the eyes that they 'can look through a keyhole with both eyes at one time.' * * * The writer feels that he knows the physician a little bit better than the average advertising man; because, in the first place, he spent twenty years of his life in the Wholesale and Retail Drug business, and his dealings during this time were confined mostly with physicians, and he can go on record as saying that during all this time he actually never knew of a case of where a doctor stayed up nights studying how he could improve the health of a Community at large."

Here is a paragraph, however, that is too good to let pass:

"Now, let us tell you another thing, if the Doctors in the United States did not prescribe Proprietary Medicines one-half of the Manufacturers of these remedies in this Country would go out of business inside of twelve months."

Physicians who are in the habit of prescribing nostrums should read this sentence two or

three times, and, if possible, should learn it by heart. Of course, it must be remembered that the writer of the letter is talking about "patent medicines," but he dignifies them with the title, "proprietary medicines."

The Hostetter Company, proprietors of "Hostetter's Stomach Bitters," gives a hint to the newspaper addressed in these words:

"We would, therefore, kindly urge you to use your best efforts with your Representative to assist in defeating it, otherwise we will be compelled to withdraw our advertising from the various newspapers throughout the State."

The Chattanooga Medicine Company is the firm that puts out "Wine of Cardui," the advertisements of which are so indecent that no man with any self-respect would dare to read them out loud before his family. This company also writes a letter to the newspaper and covers the same old arguments. Here is one:

"Last summer a letter was published by Edward Bok, editor of the Ladies' Home Journal, in which he gave the physicians to understand that he had organized a bureau to promote legislation of this character and that bills for this purpose would be forthcoming in every State legislature during the coming winter. It may, therefore, be assumed that the enclosed bill is the one which the editor of the Ladies' Home Journal deems most suitable for the people of Kentucky and which he has caused to be introduced."

Poor Mr. Bok seems to be "getting it in the neck" sadly. As it happens, however, this is not Mr. Bok's bill if he has any, and Mr. Johnson, we are reliably informed, knows nothing about the articles in the Ladies' Home Journal or about the bill with which Mr. Bok is credited.

We make one more quotation from the "Wine of Cardui" people:

"Trustworthy statistics gathered during the last six months conclusively show that casualties from the use of proprietary medicines are exceedingly rare and practically never occur when the directions on the package are followed. On the other hand the number of fatalities arising from the use of strychnine, morphin, arsenic, etc., prescribed by physicians, is many times greater than the casualties resulting from the use of proprietary medicines of every description."

It may be interesting to note that this paragraph occurs almost word for word in the letter of the "Peruna" people and that the same "arguments" are given in all the letters, indicating a common source for the "information" that is supplied to the servile newspapers.

A desperate effort is being made by the press committee of the Proprietary Association, assisted by the Western Druggist of Chicago, the

National Druggist of St. Louis, and some other drug journals, to overcome the verified statements of Mr. Adams regarding deaths from the use of "patent medicines," but they have not succeeded. We hope to have something definite to say on this point before many weeks. From evidence that has been coming into this office recently. Mr. Adams did not by any means exaggerate when he spoke of the number of deaths from the use of "patent medicines"; he most decidedly underestimated the number.

There are other letters of a similar tenor, but we have quoted enough to show that the tactics to muzzle the press, as illustrated in Collier's article on "The Patent Medicine Conspiracy Against the Freedom of the Press," and that were used in Massachusetts and Wisconsin, are being adopted in Kentucky.

This brings up the question: Who is representing the public in this matter, and what are the physicians of Kentucky doing about it? Thus far, physicians have done nothing in furthering the propaganda against the "patent medicine" fraud, probably because they fear that if they did their motives would be misconstrued and their actions charged to selfishness.

The Proprietary Association is asserting that physicians are instigating this fight against secrecy and fraud in "patent medicines"—for it is the secrecy and fraud that are objected to, this must not be forgotten—therefore, since we have the credit, would it not be just as well for us to deserve this credit and go to work and do what we ought to do? We urge the physicians of Kentucky to assist in this fight against the vultures who are preying on the gullibility of the ignorant and on the fears of the sick and the suffering.

MEDICINE IN MODERN WARFARE.

With the recent publication of the observations of some of the military attaches of the armies of Russia and Japan, our interest in the recent struggle is rekindled, and we hope before long to see the official reports from the respective governments.

There are several features that make this campaign of peculiar interest to the medical profession. It is the first campaign in which all of the many modern military, surgical and sanitary advances have been fully and fairly tested. And if Russia is and has been organized as perfectly as Japan evidently was, medicine will inherit an invaluable contribution, and mankind will receive at least some compensation for the sacrifices it has been compelled to make.

In this connection it is note-worthy that the surgical deductions of the Russo-Turkish

campaign exceeded that of almost every other campaign, if indeed it did not exceed in importance the combined knowledge gathered from all the campaigns prior to that period—thanks to the German Government in general and to Von Buerghman, Rehyer, and others in particular, for it was through the labors of these men at the instance of the German Government that the true knowledge of the aseptic nature of gunshot wounds was obtained. This we believe was the most important advance in purely military surgery made since the time of Ambrose Pare, who flourished during the reign of Francis I and who first used the ligature instead of the actual cautery.

The efforts of the German Government alone to secure a true knowledge of the effect of the small bore projectile had been something monumental not to speak of those of other governments which although less in scope yet still represented an enormous expenditure of time, energy and money. At last we have had not only our opportunity to test the behavior of this missile, but also the invaluable aid of the fluroscope and Roentgen ray to better improve that opportunity. But as a result of this campaign we hope that the governments will ultimately realize that there is something else to be reckoned with in a campaign besides bullets, and that the bacteria that represents the "Invisible foe" are far more deadly than the bullets that represent the visible foe. Medicine in warfare will then at least receive its dues, and if it does, they will realize that the man behind the bacteria will probably come nearer holding the welfare of the army and the destiny of the nation in his grasp than the much vaunted man behind the gun. There may be more noise and smoke at the front than in the rear, but we doubt if there is any more true courage and genuine devotion, notwithstanding the fondness that is chronic with the public in its worship of the uniform.

AUGUST SCHACHNER.

COUNTY SOCIETIES.

[Secretaries of county societies are requested to furnish for this column, and without further notice, all county society news of interest, such as the date and place of the monthly meeting, notice of death and marriage, epidemic disease, and, in fact, everything which might be of interest to brother practitioners in the State.]

The Bourbon County Medical Society held its December meeting at the offices of Drs. Fithian and Daugherty, the Secretary of the Society being the host.

A collation was served.

The annual election of officers resulted as follows:

President, W. C. Ussery, Paris; Vice-President, J. A. Gilkey, North Middletown; Secretary-Treasurer, C. G. Daugherty, Paris; Censor, R. T. Wood; Delegate to Owensboro 1906, C. B. Smith, Millersburg; Historian, F. L. Lapsley, Paris.

The January meeting was held in the new Court House after a spread at the Elks' Cafe with Dr. J. S. Wallingford as host.

A paper on "Hysteria" was read by Dr. Silas Evans; the discussion was opened by Dr. D. B. Anderson.

A paper on "Electrolysis," with special reference to the removal of naevi, warts, moles, and superfluous hairs from the face, was read by Dr. J. S. Wallingford, and discussed by Drs. W. C. Ussery and C. G. Daugherty. This led to the discussion of ethical subjects. The discussion, which was general, was quite profitable to the society, all going on record as being in favor of standing by the fee bill adopted December, 1904, and putting the cheap doctor in a class by himself. Cheap doctor, cheap and poor service!

The February meeting was held at the offices of Drs. Fithian and Daugherty, Dr. Fithian serving a Dutch lunch at the conclusion of the meeting.

The subject for the evening was a symposium on pneumonia. Dr. F. L. Lapsley read a paper on "Etiology, Symptomatology and Diagnosis of Pneumonia in Children;" Dr. Daugherty read a paper on "Treatment of Pneumonia in Children;" Dr. Margaret C. Wood's subject was "Broncho-Pneumonia in Adults;" Dr. Ashby Carlisle Wilmott's, "Lobar Pneumonia in the Adult." Dr. Thos. C. Holloway of Lexington and Dr. Wood of Mt. Olivet were present and took part in the discussion.

Dr. Holloway was present to champion the "Publication-of-formula-bill" of the Hon. Mr. Johnson, and the stand of the American Medical Association against proprietary and patent nostrums, and scored Dr. Daugherty for quoting the use of Cherry Pectoral, Antiphlogistin, and other proprietary products. Dr. Daugherty admitted the necessity of standing by the American Medical Association and for forcing manufacturers of ethical products to withdraw from the Proprietary Association, but more the necessity of teaching materia medica, therapeutics and prescription writing instead of so much nihilism as can be quoted readily from Osler and other reputable works on practice.

The next meeting will be held at the County Court House. There will be a "Symposium

on Urethritis," and the host, Dr. Silas Evans, will give a Dutch lunch after the meeting. This meeting will be held March 15th at 7 o'clock P. M.

C. G. DAUGHERTY, Sec'y.

* * * *

The Henderson County Medical Association met February 27th, 1906, in the office of Dr. Arch Dixon, at Henderson.

Dr. J. C. Moseley reported a case of hydatid mole with specimen. Dr. Dixon read a paper on "Atrophy of the Liver," in which atrophic and hypertrophic liver were compared. The paper was discussed by Drs. Quinn, Bethel, Moseley and Hancock. Dr. Moseley read a paper on "Our Attitude Towards Small-Pox and Vaccination."

Application for membership was made by Drs. W. F. Armstrong, Ira D. Cosby, E. Branson and C. P. Cottingham.

* * * *

The Henderson County Medical Association met in the office of the Secretary Monday, March 12th, 1906.

A paper on "Acute Inflammation of the Liver" was read by Dr. Griffith. Dr. W. W. Wilson read a good paper on "Abscess of Liver." These papers were freely discussed by Drs. Bethel, Dixon, Dunn, Hancock and Edwards.

SILAS GRIFFIN, Sec'y.

KENTUCKY NOTES.

Owensboro, Ky., March 1, 1906.

Pursuant to a call of the Chairman of the Board of Councillors, of the Kentucky State Medical Association, said board convened in the office of the Chairman, Dr. Sherrill, in the Masonic Temple Building, Louisville, Ky., at 2 o'clock, P. M., March 1, 1906.

The meeting was called to order by the Chairman, and the regular Secretary, Dr. Bullitt being absent, the chair appointed Dr. D. M. Griffith as acting secretary for this meeting.

Dr. I. A. Shirley of Winchester, moved that this body request Dr. J. N. McCormack the National Organizer of the American Medical Association, to put in the month of May visiting each district in the State making, in the larger centers thereof, a popular address to the laity. Same being seconded by Dr. D. M. Griffith was put by the Chairman and unanimously carried, whereupon Dr. McCormack was formally invited and accepted. It was moved by Dr. C. C. McChord and seconded by Dr. Brown, that the Committee on Relationship of the profession to the press be instructed to urge upon the newspapers the importance of eliminating all objectionable advertising. Upon a conference of all the Councillors present it was agreed that Dr. McCormack

visit the following places in each district, to wit:—

FIRST DISTRICT.—1, Paducah; 2, Mayfield; 3, Fulton; 4, Hickman.

SECOND DISTRICT.—1, Princeton; 2, Marion; 3, Owensboro; 4, Morganfield; 5, Henderson; 6, Hopkinsville.

THIRD DISTRICT.—1, Elkton; 2, Russellville; 3, Franklin; 4, Glasgow.

FOURTH DISTRICT.—1, Central City; 2, Elizabethtown; 3, Leitchfield; 4, Hodgenville.

FIFTH DISTRICT.—1, Shelbyville; 2, Owen-ton; 3, Walton; 4, Lawrenceburg; 5, Eminence.

SIXTH DISTRICT.—1, Bardstown; 2, Springfield; 3, Lebanon; 4, Danville; 5, Harrodsburg.

SEVENTH DISTRICT.—1, Columbia; 2, Stanford; 3, Liberty; 4, Williamsburg; 5, Mt. Vernon; 6, London; 7, Somerset.

EIGHTH DISTRICT.—1, Cynthiana; 2, Maysville; 3, Paris; 4, Georgetown; 5, Carlisle; 6, Versailles; 7, Nicholasville.

NINTH DISTRICT.—1, Ashland; 2, Catlettsburg; 3, Louisa; 4, Grayson.

TENTH DISTRICT.—1, Lexington; 2, Winchester; 3, Mt. Sterling; 4, Richmond; 5, Owensville; 6, Irvine.

ELEVENTH DISTRICT.—1, Barbourville; 2, Pineville; 3, Middlesborough.

* * * *

The death of Dr. Miles Laha occurred at his home in New Haven, Kentucky, on February 20th, 1906. Dr. Laha was born and reared in Laurel County where he received his education. He was graduated in medicine from the Hospital College of Medicine in 1883, since which time he had practiced his profession in Laurel and Nelson Counties. He was forty-six years old and was twice married. He left a widow and several small children.

HUGH D. RODMAN,
Secretary Nelson County Medical Society.

* * * *

The following announcement has been received:

Harry C. Marxmiller, M. D.,
Newport, Ky.,
and

Edna Tinker Cruwell,
Los Angeles, California,
Married,

February twenty-second,
Nineteen Hundred and Six,
Bluffton, Indiana.

At Home, after November first, Los Angeles.

* * * *

Dr. M. A. Gantt, of Louisville, has moved his office from 205 West Broadway to The Gaston, 654 Fourth Street, opposite the Post Office. Office hour, 4:00 to 5:00 P. M.

DR. McCORMACK'S ITINERARY IN KENTUCKY.

Because most of the other State Associations hold their annual meetings during the month of May it has been possible for the council of our State association to arrange for an extended itinerary for Dr. J. N. McCormack in Kentucky covering that period. The Doctor does this work as the representative of the American Medical Association, and without expense to our profession, but everything will be done in arranging for the place and attendance at each appointment under the auspices of the respective county societies. It has been suggested that all of the meetings be held at the Court Houses, but this will be determined and announced for each appointment by the County Society.

Dr. McCormack has addressed popular audiences all over the United States upon "The Proper Relations of the Medical Profession to the Public," and says that he is especially gratified to take up the work with our own people, and for our own profession. His talk is especially on the business side of medicine, and the danger to the public from poverty in the profession, and he insists, after large experience in the work, that this can be made as interest-

ing and profitable to laymen as to physicians.

Each physician of every section, whether a member or not, is invited to bring his family and influential friends to the appointment most convenient for them. Lawyers, teachers, farmers, business men, druggists, legislators, city and county officials, and especially the ladies, should be not only invited, but urged to attend. The talk will not be technical, and if representative laymen can be gotten out everywhere, Dr. McCormack promises to remove much of the popular prejudice against the profession in each community, and try to secure the kind of support and co-operation from the people in all of our work to which we are entitled. The doctors of Kentucky know what Dr. McCormack has done for the profession in the past and it is urged that every one of them go to work at once in the interest of these meetings, and continue in it until he finds himself there with his family and friends to hear of the new order of things now being proposed. An especial appeal will be made for more consideration for doctors' wives, and it is hoped that none of them will fail to attend. The official itinerary is as follows:

Appointments	Date	Hour of Speaking	Arrive	Route	Leave	Distance
Bowling Green.....	April 30	7:30 P. M.				
Glasgow.....	May 1	10:00 A. M.	7:40 A. M.	L. & N.	3:20 P. M.	25
Franklin.....	2	10:00 A. M.	7:01 "	"	2:25 "	50
Russellville.....	3	2:00 P. M.	7:35 "	"	7:10 "	45
Elkton.....	4	2:00 "	8:50 "	"	5:15 "	32
Guthrie.....	4	7:30 "	5:55 P. M.	"	9:43 "	11
Owensboro.....	5	2:00 "	9:00 A. M.	L. H. & St. L.	8:40 "	40
Morganfield.....	7	2:00 "	9:45 "	I. C.	5:14 "	23
Henderson.....	7	7:30 "	6:05 P. M.	"	8:30 A. M.	88
Princeton.....	8	2:00 "	12:15 "	"	4:55 P. M.	47
Paducah.....	8	7:30 "	6:10 "	"	7:45 A. M.	41
Murray.....	9	10:00 A. M.	8:59 A. M.	N. C. & St. L.	11:58 "	19
Benton.....	9	2:00 P. M.	12:30 P. M.	"	7:32 P. M.	80
Madisonville.....	10	1:00 "	11:35 A. M.	L. & N.	3:55 "	80
Hopkinsville.....	10	7:30 "	5:18 P. M.	"	6:10 A. M.	36
Elizabethtown.....	11	2:00 "	11:35 A. M.	"	7:00 P. M.	144
Hodgenville.....	12	10:00 A. M.	7:30 P. M.	I. C.	7:00 "	11
Bardstown.....	14	2:00 P. M.	11:00 A. M.	L. & N.	6:08 "	56
Springfield.....	15	10:00 A. M.	7:05 P. M.	"	12:00 M.	20
Lebanon.....	15	2:00 P. M.	1:00 "	Drive	10:14 P. M.	10
Stanford.....	16	10:00 A. M.	3:50 A. M.	L. & N.	4:15 "	122
Lancaster.....	16	7:30 P. M.	5:13 P. M.	"	9:15 A. M.	62
Richmond.....	17	2:00 "	2:00 "	"	4:10 A. M.	110
Winchester.....	17	7:30 "	5:00 "	"	7:10 A. M.	16
Mt. Sterling.....	18	2:00 "	9:43 A. M.	"	4:10 P. M.	75
Lexington.....	18	7:30 "	5:10 P. M.	C. & O.	7:05 A. M.	34
Cynthiana.....	19	10:00 A. M.	8:24 A. M.	L. & N.	5:02 P. M.	14
Paris.....	19	7:30 P. M.	1:45 P. M.	"	5:45 "	—
Georgetown.....	21	2:00 "	9:00 A. M.	Interurban	4:00 "	31
Versailles.....	21	7:30 "	5:00 P. M.	.....	9:25 A. M.	24
Somerset.....	22	1:00 "	12:50 "	Q. & C.	3:08 P. M.	109
Danville.....	22	7:30 "	4:20 "	"	5:30 A. M.	44
Harrodsburg.....	23	2:00 "	5:50 A. M.	Southern Ry	5:55 P. M.	18
Lawrenceburg.....	23	7:30 "	5:55 P. M.	"	6:35 A. M.	25
Shelbyville.....	24	2:00 "	8:45 A. M.	"	4:15 P. M.	15
Taylorsville.....	24	7:30 "	7:15 "	"	6:10 "	30
Owenton.....	25	1:00 "	6:59 P. M.	L. & N.	6:05 A. M.	17
New Castle.....	26	1:00 "	10:00 A. M.	"	4:00 P. M.	72

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THE TUBERCULOSIS PROBLEM IN THE SOUTH.*

BY DUNNING S. WILSON, *M. D.*,
Louisville, Ky.

There is probably nothing which so forcibly impresses itself upon the thinking men of the South as the great habit of procrastination, which characterizes the majority of people living in our Southern States. This trait, to my mind, has been up to the present time one of the greatest factors in retarding the growth in this section of our otherwise progressive country. In the gathering of statistics a lack of system and promptness is evident, and is in striking contrast to the Eastern and Northern sections of the country. It is a matter of regret to me, whose sympathies and interests are Southern, that there should be such apparent lethargy regarding the usefulness of keeping accurate data upon all subjects, whether medical or lay, but fortunately the eternal hopefulness and never despairing faith of the few is about to see its fruition in an entire change, and the future of the Southland is now assured.

In order to prepare as comprehensive an article as possible, I wrote to the health officers in twenty-three of our Southern towns and cities, but regret to say that only ten answers have been received, though I wrote six weeks ago and enclosed a stamped, self-addressed envelope for reply. The letter I wrote reads as follows:

Health Officer:

Dear Sir—I am preparing a paper on "The Tuberculosis Problem in the South," to be read before the Kentucky State Medical Association, and in order that I may be thoroughly familiar with the subject, I am enlisting the aid of the health officers throughout the South. I trust that you will be able to furnish me with data on the subject. Your annual report will probably have all the information on the point that I wish, and if you can furnish me with reports covering a period of the last three years, I shall greatly appreciate it.

The especial points upon which I am seeking information are as follows:

1. Number of deaths each year from all diseases.
2. Number of deaths each year from tuberculosis. (This means not only pulmonary tuberculosis, but all cases dying from tubercular infection.)
3. How many negroes are there among the deaths each year (from all diseases)?
4. How many negroes die of tuberculosis each year?
5. What is the white population?
6. What is the negro population?
7. What steps, if any, looking to the prevention and cure of tuberculosis are being taken in your vicinity?

Thanking you in advance for your kindness and promptness in answering these question, I beg to remain,

Yours sincerely,

Taking the ten who answered, as illustrative of the situation, I feel that we are justified in at least forming conclusions which have some definite bearing on the situation as a whole. I wish to say in passing that four towns in Kentucky were written to—Paducah, Owensboro, Lexington, and Frankfort; only two out of the four, namely, Paducah and Owensboro, replied. The others replying to my letter were New Orleans, La., Atlanta, Ga., Nashville, Tenn., Jacksonville, Fla., Baton Rouge, La., Little Rock, Ark., Raleigh, N. C., and Charleston, W. Va. Those not replying were Lexington, Ky., Frankfort, Ky., Richmond, Va., Asheville, N. C., Columbia, S. C., Galveston, Tex., Montgomery, Ala., Birmingham, Ala., Tallahassee, Fla., Dallas, Houston, Austin, and Ft. Worth, Tex.

The Tuberculosis Problem in the South presents certain factors not analogous to any other section of the country, one of the most confusing elements being the large percentage of negro population; and while we do not have to deal with the great tenement house problem, there are certain other characteristics in our life which are as truly to be deplored as the unsanitary tenement districts in our larger Eastern cities.

In the thirteen States consisting of Tennessee, Kentucky, West Virginia, Virginia, North

* Read before Kentucky State Medical Association, Louisville, Oct. 20, 1905.

Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Arkansas, Florida and Texas, we find three States—Tennessee, Kentucky and West Virginia, where consumption comprises 13% and over of the death rate, there being only two comparable to these in the whole United States—namely, California and South Dakota. Three in this section have a death rate from consumption of over 11%—Virginia, North Carolina and South Carolina. Four have over 9%—Georgia, Alabama, Mississippi and Louisiana; and two over 7%—Arkansas and Texas; and one less than 7%—namely, Florida, this latter estimate being probably somewhat too low. This gives an average for this section of about 11.2%, which is higher than in any other similar group of States in the United States. Taking for instance the most populous States in the Union—Maine, Massachusetts, Rhode Island, Connecticut, Delaware, New Jersey, New York, Ohio, Vermont, New Hampshire, Pennsylvania, Indiana and Illinois—we find an average of 10.3%.

If we are asked the question—why should our section of the country carry with it such a large mortality? we are apt to answer—because of the susceptibility of the negro population. While believing that the negro plays a very important role in our mortality records, I am of the opinion that the so-called susceptibility of the negro has given rise to great confusion, and that more consideration should be given to his habits and surroundings than to any inherited disposition, and I hope to be able to show that my idea is not unfounded.

Without tiring you by giving you a long list of statistical tables (though in publishing this article I feel justified in submitting them), I may say that in those States having the largest percentage of negroes, the mortality from tuberculosis is less than in the States having a lesser percentage. The most interesting point to me is the fact that in the States having cities of large size, the mortality is great, while in States whose population is confined to smaller towns, the mortality is comparatively low.

As an example, Kentucky contains 2,147,174 inhabitants, over 16% of whom live in towns of 8,000 or over; yet we know that a large portion of this 16% is really composed of towns of from 15,000 to 20,000. The percentage of deaths from tuberculosis is 14.56, while only 13% of the population is negro. Louisiana on the other hand has a population of 1,381,625—47.2% of which are colored, 22% of the white and colored population living in cities of 8,000 and over. This would make us conclude immediately that the death rate from tuberculosis should be high, whereas it is only 9.62% for the State. The situation becomes clear, however, when we find that 22%, practi-

cally, takes in only the city of New Orleans with its 310,000, leaving the balance of the State divided into small hamlets.

Louisiana has an area of 45,420 square miles in which to care for her 1,381,625, while Kentucky has only 40,000 square miles to care for her 2,147,174 people, and the latter are congregated into larger towns, naturally causing the death rate to be increased. Among the twelve largest cities in the United States, the city of New Orleans ranks highest in the mortality from tuberculosis, 14.9% of the deaths being from this disease; San Francisco runs a close second, with 13.6%.

The large negro population of New Orleans, and the large Chinese population of San Francisco, may each have a distinct influence in causing the high mortality from tuberculosis. Is this due to any inherited tendency on the part of the two races, or does it more nearly correspond with the surroundings, habits, mode of living, and, in the case of the Chinese more particularly, religious superstition and occupation?

We know the negro is uncleanly, careless, improvident, inclined to alcoholism, and superstitious as well. In the cities he occupies the most unhealthy localities, living in crowded, ill-ventilated rooms, and spending his substance on wearing apparel conspicuous for its decorative rather than its utilitarian value.

The State of California leads the list in mortality from tuberculosis, with Tennessee second, Kentucky third, and West Virginia fifth, South Dakota being fourth.

If the negro is such an important factor in our mortality reports on account of his inherited susceptibility to the disease, why is it that the five States ranking first in the mortality are the ones which contain comparatively few negroes, California having but 5.5%, Tennessee 23.8%, Kentucky 13.3%, South Dakota 5.2% and West Virginia 4.5%, while Louisiana, with a death rate from tuberculosis of only 9.62%, has a population of 42.7% negroes; Florida has a death rate of 8.59%, with a population of 43.7% negroes; South Carolina has a death rate of 12.45%, with a population of 58.4% negroes; Mississippi has a death rate of 10.51%, with a population of 58.7% negroes; and Georgia has a death rate of 9.8%, with a population of 46.7% negroes.

The subject of the negro's relation to the tubercular death roll is most interesting, but we must leave it to consider other points having a bearing on the problem.

Ignorance of sanitary laws, and often a disregard of said laws when known, are points not to be overlooked. Child labor, for instance, showing low financial conditions, retards and arrests the proper development of children and makes them fit soil for the infection from tuberculosis.

It seems to me that the ignorance or thoughtlessness which has allowed such a state of affairs to exist points with no uncertainty to a care-free, improvident people, who are anxious to have all for the present and are leaving nothing for the future. I have been told by good authority that the children of the blacks are able to get a better education than the lower class whites, because so many of the white children are at work when they should be at school or at play.

Marriages among the Southern people are consummated much earlier than in any other portion of our country, and this, coupled with the fact that motherhood is often entered upon before womanhood has been reached, tends to reduce the vitality, allowing for the easy propagation of tuberculosis. The popular belief that child-bearing is an aid in the cure of tuberculosis is a fallacy which should be eradicated from the minds of the people. The pregnant woman may seem to have the disease arrested, but it is only apparently so, and it is likely to manifest itself in no uncertain manner during the period of lactation.

In the mountains of Kentucky, West Virginia and Tennessee the people are not only careless and improvident, but the food upon which they subsist is of the poorest quality; and though the air and surroundings are favorable, yet the habits of the mountaineers are such as to render them very liable to contract the disease. In the lowlands the people are crowded together in cities and no attention is paid to preventing the spread, thus allowing each case to become the nucleus for others.

Right here I wish to say something regarding the influence of climate on the cure of tuberculosis. I am anxious to go on record as saying that I believe, and can support the assertion by indisputable evidence, that tuberculosis is curable in this climate, or in almost any other climate, provided proper attention is paid to rest, food, and the breathing of fresh air. Strange as it may seem, a great many doctors are yet unconvinced of the trifling importance of climate, though people are every day being cured in all climates.

A frequent argument that I hear is, that because the disease is not curable in this climate, there is no incentive to erect sanatoria for its care, or to adopt measures to prevent its spread. This is wrong, absolutely wrong, because the more difficult of cure a disease happens to be the greater should be the efforts to prevent it.

How can we prevent tuberculosis? How may we best convince people of the necessity of caring for these cases in sanatoria? Shall the spread be prevented by legislation? No, a thousand times no! You can no more legislate against disease before the people have

knowledge, than you can legislate against immorality before the conscience has been awakened. The only legislation that should be enacted and enforced is the one requiring that physicians report cases of tuberculosis coming under their notice. But knowledge comes through education, and education comes through teachers, and we are the teachers upon whom rests the responsibility of instructing and guiding, until the public sees the wisdom of taking steps to prevent this scourge.

There has been a great wave of public awakening which seems at last to have reached our Southern shores, and the South will soon be thoroughly alive to the importance of taking active measures toward relieving herself of this terrible hardship. Kentucky has taken the lead by organizing a Kentucky Anti-Tuberculosis Association, whose membership is increasing daily; already a site has been selected for a sanatorium, and money is pouring in for its purchase, and before long a practical demonstration of the curability of tuberculosis in this climate will be under way. The duty of the medical profession is to encourage movements looking to the study and prevention of tuberculosis, and they should present a united front in this battle for better conditions.

In conclusion, I wish to offer several suggestions as to the duties of the physician, the patient and the public. First, it is our duty to learn to make an early diagnosis before the bacilli are in the sputum, before it is even suspected by the patient, and we should then under all circumstances tell the patient what our findings are, so that there can never be any misunderstanding. Refusal on the part of the family to consent to such disclosure should be the signal for our resignation as medical adviser.

Second—It is the duty of the patient to accept the counsel and advice of the physician in a spirit of thankfulness for having been so early apprised of the existence of the disease. All other duties should be laid aside if possible, and the entire effort given toward the recovery of health, appreciating the fact that it is a hard, arduous fight, to which cheerfulness and hopefulness are the greatest aids.

The patient should be made to understand that, if careless, he may be the cause of another case, and should be convinced that he must follow out all the physician's directions as to coughing, burning of sputum, etc., feeling that it is his duty to add his quota in the prevention of its further spread.

Third—The public should not consider the tuberculous person as a pariah and shun him as an outcast, but by precept and example aid him in understanding his condition and the necessity of taking proper care that he does not become a menace to his fellows by care-

lessness. If the healthy will be careful as to where they expectorate, give their attention to the proper ventilation of working places and dwellings, the consumptives will soon see the wisdom of doing likewise.

As suggested in the first part of this paper, the South has a comparatively small tenement house district, yet unless we are careful to prescribe proper building restrictions the unsanitary tenement will rear its head to blight and devastate. The South is rapidly increasing in population, and if we will but profit by the mistakes of our Eastern brothers, the tuberculosis problem will be robbed of some of its terrors.

DIONIN IN DISEASES OF THE EYE.*

By S. G. DABNEY, M. D., Louisville, Ky.

Dionin is the hydrochloride of ethyl-morphine.

Wolffberg first called attention to its uses in diseases of the eye, but Darier carried his investigations further and by his enthusiasm led to its wide trial in ophthalmic practice. Though evidently of value, its exact place in therapeutics is not yet determined.

Dionin is a white powder of bitter taste, without odor, and soluble in water in the proportion of one part to seven. It is used in the eye either in the powder form (a mass about as large as the head of a pin being placed in the lower conjunctival sac), in solutions varying from two to ten per cent., or in salve. My present experience is confined to the five and to the ten per cent. solutions. Though Darier recommends that drops of the five per cent. solution be placed carefully in the lower cul-de-sac, without passing over the cornea, and that in nervous subjects it be preceded by cocaine, I have not found its instillation in the ordinary way painful. A few minutes after its application there is often an attack of sneezing, with watering of the eye. The conjunctiva in twenty or thirty minutes becomes markedly swollen, with a chemotic ring around the cornea so great often as to overlap the border. This condition lasts for some hours, and indeed the conjunctiva and lids may remain somewhat soggy for a day or two.

As regards the mode of action of dionin I quote as follows from a recent article by Dr. Laertus Connor: "The blood plasma suddenly escaping from the arterioles forces its way into the lymph spaces, washing away the debris accumulated during existing morbid conditions and bringing fresh material for the repair of cell damages. The arterioles are enlarged three or four times, and the lymph-vessels tenfold, the first supplying the flood of blood plasma, the latter removing it to the

general circulation. Pressure of the blood plasma diminishes the sensibility of the terminal nerves, while the better feeding of the starved cells renders the relief more or less permanent. This end is further promoted both by the removal of pathological products and by increased production of antitoxins and phagocytes." Dr. Connor finds that dionin has no effect on the pupil, local sensation, accommodation or intraocular pressure.

In addition to its action as a lymphagogue the most marked effect of dionin is analgesic. There are two limitations to its usefulness: first, after applying it for a few days it ceases to have any effect, and must be discontinued for a similar length of time before it is again effective; second, there are some persons upon whom it has no effect whatever.

This individual variation is so great that I have sometimes believed my preparation was at fault, but on using a few drops out of the same bottle and at the same time in another patient its full effects would be produced. Its usefulness both as an absorbent and as an analgesic depends on its lymphagogue action and is thus promptly manifested, but it seems to control pain even after the swelling has subsided.

McKee experimented by injecting india ink into the anterior chambers of the eyes of dogs, cats and rabbits, and then instilling a solution of dionin into one eye of each animal and observed the rapidity of absorption in this eye compared with its fellow. There was no effect in the rabbit, but conjunctival swelling and chemosis was produced in the dogs and cats, and the ink was absorbed much more rapidly in the eye to which dionin was applied.

Bloch found the dionin reaction to take place only in pathological eyes; in normal eyes it acted only as a foreign body. He found the drug of value in suppurative keratitis with hypopyon, in six cases effecting a cure without the use of the cautery; in acute inflammatory glaucoma, and especially in corneal opacities, either in the inflammatory or quiescent stage.

Hinshelwood experimented with a five per cent. solution of cocaine, a one per cent. of holocain and a five per cent. solution of dionin, to determine their value in relieving the deep-seated pain of iritis, irido-cyclitis and glaucoma. He found cocaine the least and dionin the most effective, both as to the completeness and the duration of the relief.

Exactly the same conclusions have been reached by Church.

Reber reports a case of violent iritis with infection, threatening panophthalmitis, following needling for capsular cataract; it was uncontrolled by atropine and salicylates; a ten per cent. solution of dionin was then used every two hours; next day the eye had cleared up a great deal and was free from pain; in

*Read before the Kentucky State Medical Association, Louisville, October 20, 1905.

five days the exudate and capsule had been absorbed. He found it useful also in relieving the pain of iritis and of absolute glaucoma, in promoting absorption in sympathetic ophthalmia and in interstitial keratitis, but negative in opacity of the cornea following ophthalmia neonatorum, and in opacities of the vitreous.

Hale thinks dionin of great value as an adjuvant to other drugs, both as an analgesic and in promoting absorption. Bulsons' experience coincides with Reber's as to its value in inflammation of the iris and cornea, in glaucoma and in sympathetic ophthalmia; but he observed a good effect on opacities and hemorrhages of the vitreous, as well as hemorrhages in the anterior chamber.

Others, among them Blanco and Steele, also report good results in intraocular as well as subconjunctival hemorrhages, and Steele greatly hastened the absorption in a case of black eye by injecting dionin into the lower lid. Connor, from whose paper I have quoted above, finds dionin of value in clearing up recent corneal opacities, in relieving the pain of corneal ulcers and of iritis (probably in lessening the duration of this disease also), in promoting absorption in sympathetic ophthalmia and of lenticular masses in the anterior chamber.

He quotes Wurdeman as observing good effects from dionin in scleritis and episcleritis, Black in iritis and synechia, Bulson in interstitial keratitis, and DeSchweinitz in keratitis profundam, when associated with anti-rheumatics and atropine.

Darier recommends dionin not only in inflammations of the sclera, cornea and iris, but advises its subconjunctival use in detached retina; he reports a detachment of two months' duration cured by one injection of dionin after twelve similar injections of sodium chloride solutions had failed; he considers it the physiological antiseptic par excellence, both by the inundation from the lymph flow and by the increased afflux of lymphocytes; he finds it so effective in lessening the sensitiveness in cases of acute and subacute glaucoma, that he is often able to dispense with chloroform in operations where he formerly used it; in the so-called strumous ulcers in children, and in recent diffuse corneal infiltration he finds it valuable, and especially in certain kinds of iritis and iridochoroiditis. To most observers his reports seem too enthusiastic.

Some of the cases in which dionin has been useful in my hands are as follows:

First:—Glaucoma following needling of capsular cataract.

Mr. A., age fifty-three, was operated on for senile cataract in February, a preliminary iridectomy having been done six weeks previously; there was no loss of vitreous and no

other complication; recovery was uneventful, but a thickened capsule reduced the vision to 20-70. In April I needed this at the gentleman's home near the city; there was at first only slight reaction, but a week later his mother died suddenly and he attended her funeral; pain in the eye began about this time, and in a few days developed into a severe glaucoma; he was brought to the infirmary and eserine and hot applications used locally, with sedatives internally; these measures gave only partial relief, and I was considering another iridectomy or sclerotomy when I decided to try dionin. Two drops of a five per cent. solution were instilled into the eye; in a few minutes there was marked swelling of the conjunctiva, with chemosis. This was followed by great diminution of pain and improvement in sight.

It was repeated once daily for a few days, then left off for the same time, and then applied again. The case progressed steadily to recovery, and was discharged with vision nearly 20-20.

Second:—A lady of about thirty, rather pale and delicate, was seen in consultation in June. She had a sclero-keratitis, causing great pain, which had resisted the usual treatment. Dionin gave great relief, and in conjunction with the commonly used remedies resulted in a cure in a few weeks.

Third:—A gentleman of thirty had iritis of moderate severity; the disease had existed about ten days when I first saw him. Under atropine the pupil dilated evenly and well, except for a rather broad synechia toward its lower edge. This resisted the cocaine, atropine and hot application treatment, but yielded after two applications of dionin, followed in each case by atropine.

Fourth:—A girl of sixteen with diffuse interstitial keratitis in both eyes; mild in the right eye and yielding to the usual measures— atropine, hot applications and internal specific treatment; severe in the left eye and attended by iritis. In this eye dionin seemed to aid the atropine in dilating the pupil and to hasten the absorption of the corneal cloudiness, but its action was not very decided.

In conclusion it may be said of dionin:

First:—That it is often of value as a pain reliever in inflammations of the outer tunics of the eyeball, as well as of the iris and ciliary body, and in glaucoma.

Second:—That it often aids in the absorption of recent corneal infiltrations, and of blood and of lenticular matter from the anterior chamber.

Third:—That it occasionally aids the mydriatic effect of atropine.

Fourth:—That it is worthy of further trial in detached retina and in opacities of the vitreous.

Fifth:—That it varies remarkably in its action in different individuals.

Sixth:—That it is harmless, so far as yet reported.

DISCUSSION OF DR. DABNEY'S PAPER.

Dr. I. Lederman, Louisville: Dr. Dabney has selected for the subject of his paper a drug, a new chemical compound, which is full of promise as a curative agent, more so than any other compound brought to the notice of the profession within recent years. It was first brought to our notice by Darier in his book published in 1903, and since then the drug has been used everywhere by men of authority and reliability, and they have furnished us with reports that are a very good test of this remedy so far as clinical results are concerned.

Dionin is rather a remarkable agent, and at first we may be inclined to wonder at its effect, considering that it is merely a local remedy. We do not know its exact mode of action. We can only guess at it. Dr. Dabney mentioned Connor's theory that dionin acts locally, some change taking place in the lymph and blood vessels, allowing the lymph to be absorbed, and at the same time increasing the caliber of these vessels and bringing about an inundation of the lymph spaces. That theory has not yet, however, been proven to be correct. It may be that the drug brings about its action by central influence, being absorbed into the circulation by the lachrymal secretion. We know that dionin is vastly superior to morphine, and it has been used internally as a substitute for morphine and codeine since 1880.

I have had some personal experience with it as a local agent, and my results accord with those of Dr. Dabney and others. In iritis it has yielded the most remarkable results. Very recently in a case of iritis in which atropine seemed to be worthless so far as dilating the pupil is concerned, dionin gave me a most prompt and satisfactory result. The patient was immediately relieved of all pain, and the pupil readily responded to the influence of atropine. Shortly after it was brought to my attention I had the opportunity of using it in three children, ranging from four to eight years of age, who had typical interstitial keratitis due to hereditary syphilis. I used dionin faithfully and found that it had the effect described by Dr. Dabney. There was some pain, like that caused by a foreign body in the eye, which was promptly followed by a sense of relief, but I can not say that I saw any decided effects upon the disease from the use of the dionin in these cases. They ran their course just as though dionin had not been used. They are now in the third or fourth month of the disease, and have gone through the usual stages of interstitial keratitis, no matter whether or not dionin is used.

One point brought out by Darier is that dionin may possibly be of service in diagnosing the con-

dition of the blood vessels. He has observed that robust individuals with a good vascular tonus do not react to dionin as do those cases that have atheroma or arteriosclerosis. So that it is barely possible that in certain cases we may be able to diagnose a strumous diathesis in the young, and in older people arteriosclerosis, Bright's disease, cardiac lesions, etc. I have not been able to draw any such conclusions. If these observations could be substantiated, this would be a very valuable diagnostic aid, aside from its effect on ocular lesions.

Only recently I tried dionin in a case of conjunctivitis. Darier claims that dionin is of benefit in every form of conjunctivitis, except in trachoma or granular conjunctivitis. My case was benefited markedly by the dionin, although there were no spectacular effects. The benefit came from the relief given the young woman, a neurotic. The case has not been under observation long enough to decide whether the effect of our further measures will be enhanced from the fact that dionin was used. The authorities who have used this agent for some time furnish us with reports about which we must be somewhat skeptical. According to these reports dionin is a panacea for all ills. We have not yet arrived at that stage of our work where that can be possible. Dionin should be experimented with carefully. So far no case has been reported in which its use was followed by any harmful effect. We are therefore justified in trying dionin in every case, whether it is indicated or not, cases in which other measures have not been successful. I would use it in all cases of ocular inflammations where other well known remedies have failed. I do not believe, however, that deep ocular inflammations will be influenced by dionin, unless by the subconjunctival injection of the remedy, and I doubt that we would then get any benefit from the specific action of dionin.

Dr. Dabney mentioned a case of detached retina which was treated by subconjunctival injections of dionin, with the result that the retina again became attached. That does not prove anything in favor of dionin, for the reason that cases have been reported in which reattachment of the retina took place from the subconjunctival injection of saline and other solutions, due to the mechanical effect produced by a flooding of the lymph spaces.

* * * *

Dr. D. M. Griffith, Owensboro: I have been very much interested in this paper, because it takes us out of the field of diseases into the field of therapeutics, a field that has been neglected somewhat. Dr. Dabney has given us some excellent points, and he has presented to us a drug which has been of great assistance in handling these eye cases. It is a drug that enables us to secure mydriasis in cases where it has not been possible to dilate the pupil heretofore. I have many cases come to me ten days or two weeks after an accident in which I could not break up the synechiæ with atropine alone, and where a

combination of atropine and dionin was eminently successful, even if the adhesions had existed for three weeks.

I recall a case I saw about a year ago, one of ophthalmia neonatorum, in which the infection extended into the anterior chamber. I tried dionin after I had used atropine without any result, except poisoning the patient. I secured complete breaking up of the adhesions, and the child has a good eye now. One doctor advised an iridectomy as the only cure, when dionin did the work.

Dionin favors and promotes healing. It acts somewhat like flushing a sewer. It alleviates pain and lessens photophobia. It contributes more to the comfort of the patient than any treatment I have ever used.

* * * *

Dr. Dabney, closing the discussion: In the case of a drug as new as dionin it is always gratifying to have the experiences of our colleagues. I am very glad to hear, therefore, that in the hands of Dr. Lederman and Dr. Griffith dionin has produced such good results as a mydriatic in assisting atropine, in relieving pain and in aiding absorption.

The case of detached retina which I mentioned did not occur in my own practice. It was a citation from Darier, and he is considered as being rather too enthusiastic. But he had tried twelve saline injections before using the dionin, and if that is true, the dionin really cured the case. It would appear that dionin possessed some specific action independent of being injected subconjunctivally. This is the only case of the kind that has been reported.

As to the mode of action of dionin, Dr. Lederman said something about its being absorbed into the general circulation and then acting on the central nervous system. I do not believe that to be the case, because its analgesic effect is confined entirely to the eye to which it is applied. If there was pain in both eyes, the pain would disappear only in the eye to which dionin had been applied, and not in the other eye as well. Hence the action of dionin is a local one and not a systemic one.

I was very much interested in Dr. Griffith's case, which I had the pleasure of seeing. I am glad to hear that dionin succeeded in breaking up the old adhesions that had existed for some time. If that can be accomplished, dionin is the most valuable drug at our command to aid atropine in iritis.

In the treatment of interstitial keratitis, my experience has been similar to Dr. Lederman's. The case reported in my paper, which complicated an inflamed iris, was benefited very much by the dionin, the course of the disease being hastened considerably.

I have never been able to convince myself that the active effect of dionin meant that the patient had heart or kidney disease. Dr. Lederman said that if we could use dionin as a diagnostic agent in such cases, it would be valuable. It certainly

would. That statement has been made, but we must always bear in mind the individual variation. Some persons show hardly any effect at all, while others are affected most profoundly, but we can not say that this effect was due to any hardening of the arteries.

* * * *

Dr. Griffith: While I know that dionin augments the mydriatic effect of atropine greatly, it has seemed to me that it also inhibits the toxic effect or action of atropine. I have had cases that reacted markedly in that respect to atropine. Since I have been using dionin with atropine I have not noted any such results.* I can not explain that action, but, nevertheless, the clinical finding is there awaiting an explanation. It has occurred to me that the explanation I offer might be the correct one.

FLAT-FOOT AND WEAK-FOOT.*

By B. F. VAN METER, M. D., Lexington, Ky.

It fell to the lot of Lewis A. Sayre to devise a rational treatment for Pott's disease and hip-joint disease, based upon a true and correct understanding of the pathology of those diseases. It fell to the lot of Royal Whitman to explain the pathology and etiology of flat-foot and weak-foot, and to devise apparatus and a method of treatment that was curative and not palliative, as the treatments heretofore had been. It so happened that I was house surgeon at the hospital for R. and C. while Dr. Whitman was working out his ideas on feet and preparing the manuscript for his orthopedic surgery, which was to give to the profession a true idea of the pathology and a rational treatment for the correction of flat-foot.

I do not propose in this paper to give much that is new and original, and my only excuse for coming before you with the subject is that cases continually come to me after having received treatment at other hands based upon the old and incorrect understanding of the condition, which treatment is only palliative and not corrective in its scope. I have therefore been led to the conclusion that what I say may be new to some. The so-called flat-foot is an unfortunate term, and does not apply to the new understanding of the condition, and since all flat feet are weak feet, but all weak feet are not flat, I will use the expression weak-foot until I have explained my conception of the condition, pathology, cause, etc., when I will then, under the head of diagnosis, suggest an improvement on both the expression flat-foot and weak-foot.

In the first place, it is an extremely common condition, as evidenced by the fact that one can see them on the street every day, and by

* Read by title before the Kentucky State Medical Association, Louisville, October 20, 1905.

the fact that almost as many men are rejected at the U. S. Recruiting Stations for weak-foot as for heart and lungs.

The foot is to be considered as a mechanism or machine that is ball-bearing, the astragalus being the ball; it is free and movable, with no muscular attachments. In order to understand how the machine is put together and how it is supposed to work normally, it is necessary to consider the foot first as a passive support. The supports of the foot are muscles, ligaments and plantar fascia. As a passive support, it is supported by the ligaments and fascia; in activity, largely by the muscles. It is normal for the ligaments, during passive weight bearing, to allow slight internal rotation of the astragalus with a broadening of the foot and some depression of the arches; if the ligaments allow abnormal expansion with rotation of the astragalus beyond the lock, the arches become permanently depressed, and as a result the range of motion necessary to the proper working of the machine is restricted.

The foot in activity. The second function of the foot or machine is that of a lever to raise and propel the body. The calf muscles supply the power and the heads of the metatarsal bones serve as the fulcrum on which the weight is propelled; during the action of leverage and muscular activity the foot should be held in such relation to the leg that the line of weight passing through the center of the knee and ankle joint is continued over the second toe, or practically the center of the foot. As the body is lifted over the fulcrum, the fore foot is turned inward in its relation to the leg; thus the strain is directed toward the outer and stronger side of the foot. In walking properly, which is the best illustration of the leverage function, the feet should be held practically parallel, so that the line of strain will be kept in the middle of the foot. As the foot first strikes the ground, it momentarily bears weight on the heel, then it shifts to the outer border, then back along the heads of the metatarsal bones to the inner fore border, and the great toe gives the final impulse to the step; so that, if the walker is looked at from behind, he seems to be intoeing at the termination of each step. Thus during the walk there is an alternation of posture, and the foot under muscular activity and leverage assumes the attitude most opposite to that of passive support. Outward rotation of the feet is normal during passive support or weight bearing, because it enlarges the base of support, locks the joints, and throws the strain upon the ligaments to relieve the muscles. On this account it is the improper attitude for activity, because the strain falls upon the inner border of the foot, which is the weaker side, and to the inner side of the fulcrum, and makes the proper

exercise of muscular power and alternation of posture impossible. It is readily seen that the attitude normal for passive support is the opposite of and abnormal for that of muscular activity and leverage.

To repeat, the foot assumes two attitudes: first, that of passive weight bearing, when the ball (the astragalus) is locked in a cog of the machinery, the ligaments bearing the strain. Second, the attitude of muscular activity and leverage, which is the direct opposite of the first; the astragalus is rotated out and the joint is unlocked. It is absolutely necessary to understand these two attitudes; they are as definite as supination and pronation of the fore arm. Limitation, or elimination, of the attitude of leverage and muscular activity is conducive to the attitude of passive weight bearing, and an exaggeration of the attitude of passive weight bearing is flat-foot.

Movements of the foot are four in number: dorsal flexion, plantar flexion (same as foot extension), adduction, abduction. The character of the motion between the astragalus and the os calcis is rotation, so adduction, inversion and supination are practically synonymous. The same is true of abduction, pronation, eversion. As will be seen later, the diagnosis is to be made largely upon the ability or inability of the foot to execute these motions, especially that of adduction, rather than upon the depth of the arch, as a foot may inherit a low arch and at the same time be capable of a full range of motion and performing its task with comfort to its owner.

Now, if it will be remembered that the persistence of the passive attitude is a weak-foot, and that an exaggeration of the passive attitude is a flat-foot, and that the passive attitude itself is when the astragalus is rotated inward and downward on the os calcis until it is checked by the resistance of the ligaments and by the interlocking of the two bones, we have the anatomy of the weak-foot. As soon as this position becomes strained the muscles are called upon by the ligaments for assistance; the muscles contract in their effort to aid the ligaments, which adds to the irritation, and we have finally spasmodic contraction and the pathology of the rigid weak-foot. You can readily see that as soon as persistence of the passive attitude becomes strained and the ligaments begin to give, we have pain and a point of tenderness. As soon as it goes one notch further and muscular spasms set up, we will have pain and aching in the calf muscles. And let it be understood that pain is not produced by the foot being flat, but by the strain and progressive deformity.

Etiology. As Whitman says, in all cases the actual symptoms of pain and disability are due to a disproportion between the burden of strain and the ability of the machine to

perform it. Persons having occupations that require the continuance of the passive attitude, such as trained nurses, bar tenders, barbers, cooks and clerks, are especially prone to the condition, as are pregnant women, where the burden is temporarily increased. I will say in this connection that swollen ankles are due to this cause often, rather than to insufficient elimination from the kidneys.

Statistics of a thousand cases at the hospital for the R. and C. show:

	Males.	Females.	Total.
Ten years or less.....	68	30	98
10 to 15 years.....	112	87	199
15 to 20 years.....	144	83	227
20 to 25 years.....	94	53	147
25 to 30 years.....	68	41	109
More than 30 years....	130	88	220

Foot affected: right 133, left 138, both 729. In fifty-eight cases the cause of the disability appeared to be injury, especially Pott's fractures where the principle of putting up the foot adducted had been neglected. In sixty-five instances the cause seemed to be rheumatism. The age of the patient is especially interesting as bearing on the question of prognosis. Four hundred and twenty-six were between ten and twenty years, and seven hundred and eighty were less than thirty years of age. Hospital statistics do not properly portray the condition, as nearly all the patients applying for treatment applied on account of pain and disability, as they belonged to a class who must needs earn a living; whereas, from my own experience, there are a large number of the leisure or semi-leisure class affected in a mild degree. The condition does not pass beyond the mild degree because they are able to ride instead of walking, and sit instead of standing; they think they have weak ankles, gout, rheumatism, and some are alarmed regarding their kidneys and fear they have beginning dropsy. I recently had an old lady of the better class come to me with swollen ankles and the whole foot rather puffy, with the statement that she had been to three of the best doctors in town, one after the other, to have her urine examined; they had told her that there was nothing wrong with her kidneys, but had failed to tell her why the swelling. Weak-foot was my diagnosis, and proper support to assist the machine in doing its required work I am sure will relieve the condition and do away with the much-feared symptom, the swelling. The severe cases in the working class, it seems to me, should be recognized at a glance, but the mild cases in the better classes present more difficulty.

Symptoms. I can not do better than give you what Whitman says. The symptoms of weak-foot, although similar in type, vary in severity according to local conditions, disturbance of functions, the work to be per-

formed, and the susceptibility of the individual. The earliest symptom is usually a sensation of weakness, the patient begins to recognize as familiar a feeling of discomfort, of tire and strain about the inside of the foot and ankle. Sometimes after standing longer than usual there is a dull ache in the calves of the legs, with pain at the knee and in the lumbar region. After a time the patient becomes aware that he is accommodating his habits to his feet; he rides where he once walked and sits when he once stood, he no longer runs up or down stairs or jumps off street cars. He says his feet have lost their spring, which means that the foot is no longer supported and controlled by muscular activity, but that the attitude of passive weight bearing is becoming fixed. Not infrequently an early symptom is pain and tenderness at the heel, explained in part by the jarring heel walk, which is always assumed when the foot is weak, and in part by the attachment of the plantar fascia. The patient may complain that he can not buy comfortable shoes, which is because the shoe that is comfortable in the morning is close and uncomfortable later in the day, as the swelling and attitude of passive weight bearing become fixed. Coldness, numbness, congestion, increased perspiration, caused by impaired circulation and weakness, are common symptoms in this class of cases. Actual pain is felt as a rule only when the foot is in use; a dull ache in the calves, with a sensation of soreness in the foot, may be present after it is put to rest. The discomfort is usually more marked in damp weather, and this sometimes leads to the mistaken diagnosis of rheumatism.

The patient often comes with a story of having rheumatism, gout, weak ankles, sprain, and if he is able to accommodate his work and habits to his feet but little discomfort may be experienced. In many instances this accommodation is impossible, and it is most frequent in the working classes, where we see the rapid development of disability and deformity. The range of motion becomes more and more restricted, the attitude of passive weight bearing becomes fixed, then becomes exaggerated to deformity, then the foot becomes rigid from muscular spasm; the weak and dislocated foot is now subjected to constant injury and to what may be likened to a succession of slight sprains, so that local congestion, tenderness and swelling may appear, together with muscular spasm, rigidity and pain upon passive motion. The pain and discomfort now become more general in character and are often referred to the dorsum of the foot, representing muscular rigidity and tension, and to the ankle, where the external malleolus is grinding out a facet in the projecting os calcis. The patient now complains of discomfort in the feet, cramping in the leg while in bed, and

the expression of weakness and the depression of spirits may lead one to suspect some serious disease of the nervous system. At this time a certain range of motion remains at the ankle, but adduction is positively restricted by the shortened and spasmodically contracted muscles on the outer and upper surface of the foot. This type of case represents the patients most often seen in hospital practice.

Diagnosis. Before going into diagnosis, I want to say the expressions "flat-foot" and "weak-foot" are both unsatisfactory; they do not convey to the student or to the patient an adequate understanding of the condition. I would therefore suggest that the term flat-foot be done away with, and astragaloid displacement substituted; and for weak-foot, astragaloid strain or sprain substituted, as the case may be; and the expression weak-foot be limited to the feet that are inherently weak but without symptoms. The expressions sprain, displacement, strain, convey a definite meaning, both to the student and to the patient, and are exactly expressive of the respective conditions.

In making the examination of a foot for diagnosis, it should be examined while at rest, in the attitude of muscular activity and leverage, and in the attitude of passive weight bearing.

In making the examination of the foot at rest, examine for points of tenderness under the arch and at the insertions of the plantar fascia; notice the general contour of the foot, having a normal standard in mind; also note swelling, congestion, increased perspiration, the range of voluntary motion, especially adduction. Next examine in the attitude of muscular activity and leverage; have the patient walk barefooted and determine whether the machine is capable of performing properly its function, then in passive weight bearing; wet the soles of the feet and stand on brown paper, notice the distribution of the weight; the damp outline on the paper will give you a pattern to compare with the normal standard. It seems to me that, with the history of the case and an orderly examination carried out as here outlined, the diagnosis ought to offer little difficulty. By following out a careful and orderly examination one will be able to recognize the several grades of disability and permanent change in the foot which must be overcome and corrected before a cure can be accomplished. There are palliative measures used by shoemakers and others that will give comfort and relief in many instances as long as the palliative is used, but will not cure. Cure can only be accomplished by correction. It is to be remembered that pain is the symptom of overstrain, or injury, or progressive deformity, but bears no definite relation to the degree of deformity.

Treatment, on the whole, is simple, provided

one has the true and correct understanding of the condition and a proper diagnosis is made of the grade, as to whether it is astragaloid strain, sprain, or displacement. It must be remembered that muscular activity, proper leverage functions, good circulation and tone must be maintained. In the beginning (astragaloid strain), a proper shoe will accomplish this. Here is the last that I have devised; it is similar to the Whitman last as used by Block, though it is not the same. You will see that with this last a shoe would afford an opportunity for the toes to spread and carry out their leverage function and muscular activity have full play, which promotes free circulation and improves tone. In the shoe the counter is brought forward and the inner sole built up as here illustrated on the foot. The inside of this shoe affords a smooth, hard support to the arch of the foot as far forward as the head of the metatarsal bone of the great toe, and as high as the articulation of the astragalus and navicular. Here I want to condemn positively all kinds and sorts of pads, linings of sheep's hide with the wool on, as they belong to an erroneous idea and portray a lack of knowledge of the true condition. The principal thing they really do is to sweat, macerate, and soften the foot and destroy tone; they are worse than useless as a curative measure.

Astragaloid sprain. In mild form the shoe as detailed above may be all that is necessary if proper attitudes and walk are cultivated, but most probably the steel splint to fit in the shoe, as detailed by Whitman, will be necessary. The arch plates ready-made are worthless, because they do not fulfill the indication; if a splint is necessary at all the right one is needed; if not necessary, the shoe will accomplish it. The only splint that fills the indications is this one; you will see why; it checks lowering of the arch, expansion through the mediotalar joint, and promotes leverage of the great toe. In other words it checks and at the same time supports the attitude of passive weight bearing. It goes further, and promotes the opposite, the attitude of leverage and muscular activity. This brace is to be made in one way only—from the plaster cast. (The details of making cast can be found in any text-book on orthopedic surgery). On the cast the surgeon outlines the pattern, which can be varied within certain limits to accomplish definite ends. The splint is to be made of the best grade of sixteen to eighteen gauge sheet steel, galvanized and nickel-plated, so as to offer the foot a smooth, hard, perfectly fitting surface.

Rigid weak-foot, flat-foot, or astragaloid dislocation. The first step in treatment is necessarily that of correction, or preferably over-correction; this is to be done under anesthesia, and by manual force. The position

of the foot in astragaloid dislocation is eversion from the mediotarsal joint forward, prominent astragalus, depression of the arch, limitation or elimination of adduction and abduction, with muscular rigidity. In manual correction produce the opposite—increase the arch, replace the astragalus, adduct the foot, put it up in this position in plaster of Paris, first having forcibly broken up all adhesions and established full range of motion in all directions; leave in plaster for two weeks, then remove it and make a plaster cast of the foot at a right angle in the corrected position; then re-apply plaster of Paris, extending it up to the knee, leave this on for two or three weeks longer. From the cast the brace will be made and ready to wear when the foot comes out of plaster. The necessity of massage and forcible manipulation of the foot to its full range of motion in all directions by the surgeon can not be overestimated. It ought to be done every day for two weeks, sometimes longer. The patient is to be instructed never to put the foot to the ground without the splint.

Recapitulation. To accomplish a cure it is necessary to have primarily a proper shoe, one that will fulfill two indications, namely, the proper execution of the two fundamental attitudes of the foot, muscular activity and leverage, and passive weight bearing; second, one that will check the attitude of passive weight bearing and afford support. In the more progressive form a properly made splint must be applied, one that fulfills the indications. In the still more progressive form—astragaloid displacement—correction must be made by manual force followed by a period of rest, to allow the strained and relaxed ligaments to regain their tone, followed by a properly patterned and fitting brace, followed by massage and muscular action to increase the tone and strength of the atrophied muscles. With full range of motion, especially adduction and abduction forcibly carried out every day by the surgeon himself, with supervision and training in proper exercises, attitudes and walking, the worst cases can be *really* cured.

The Mercer County Medical Society met on April 10th, and the physicians of the county agreed to meet every Thursday night and discuss subjects pertaining to the medical profession. These meetings are to be instructive and will also have a tendency to put the doctors on more intimate terms with each other.

Our county society has a fine prospect, and we are trying to bring the country doctors in and make them interested.

W. HORACE WITHERSPOON, *Secretary*.

The Casey County Medical Society met in the office of Dr. I. Wesley, Liberty, Ky., on April 22, 1906, with the president, Dr. C. L. Herren, in the chair. The following physicians were present:

D. S. Floyd and W. T. Garner of Humphrey, O. Dunhan and L. F. Hammonds of Dunnville, H. F. Taylor of Mintonville, J. T. Wesley and J. M. Haney of Middleburg, I. S. Wesley and C. L. Herren of Liberty, W. A. McBeath, Phil Pierce, Martin Joyce, Wiser Cox of Powers, and John Hughes of Mintonville.

Dr. J. T. Wesley, Councilor for this district, was present and gave a strong talk on the benefits of organization and the duties of one physician to another, which was very interesting and greatly enjoyed by all present.

At the afternoon session Dr. I. S. Wesley read a very instructive paper on "*Appendicitis*," which was discussed by Drs. Taylor, Haney and Hughes.

Dr. W. T. Garner reported some cases of "*Puerperal Eclampsia*," which were discussed by all present.

Dr. D. S. Floyd read a paper on "*La Grippe*," which was well discussed; many interesting points were brought out.

Dr. J. M. Haney read a paper on "*The Duties of one Physician to Another*," which should be studied and followed by every physician.

The meeting then adjourned to meet the fourth Thursday in May.

L. F. HAMMONDS, *Secretary*.

The Grayson County Medical Society met in regular session at the Lee Hotel, Clarkson, Ky., on April 26th, at 2 o'clock p. m., with the president, Dr. J. S. Stone, in the chair. Minutes of previous meeting were read and approved, and Drs. Wm. Armes, H. L. Washer, C. L. Sherman and R. H. Byers were elected to membership.

The following papers were read and freely discussed, making the meeting one of the most interesting ever held by the society:

"*Cholelithiasis, its Medical and Surgical Treatment*," Dr. J. A. Slaton.

"*Acute Rheumatism and its Relation to Malaria*," Dr. J. T. Green.

"*Acute Bronchitis*," Dr. Eugene Deweese.

Several clinical cases were reported.

The society then adjourned to meet at Caneyville on June 7th. After adjournment the local physicians, Drs. B. C. Wilson and S. H. Armes, tendered the society a magnificent banquet at the Lee Hotel.

S. H. ARMES, *Secretary*.

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IS THERE A "PHYSICIANS' TRUST"?

The following is copied from the *Literary Digest* of March 31st:

The remarkable charge that the efforts to legislate against proprietary medicines are the outcome of what is termed "a conspiracy to establish a physicians' trust," under the leadership of the American Medical Association, is made editorially by *The National Druggist* (St. Louis, March). The writer asserts that there is no real public demand for this legislation, except such as has been, by false representations, created by certain selfish interests, and that its adoption would not only destroy the property of the manufacturers, but greatly injure the 40,000 retail druggists of the country, "of whose total volume of business at least 60 per cent. consists of proprietary medicines." This attitude of *The National Druggist* is interesting as showing for the first time a distinct division of interests between physicians and pharmacists. Regarding its charge of a "conspiracy," the paper goes on to say:

"There is an organization of doctors known as the American Medical Association. Tho it has been in existence for nearly sixty years, it had, up to three or four years ago, less than 5,000 members, out of a total of nearly 150,000 physicians in the entire country.

"It was about or a little before that time, it will be remembered, that the great trust movements began—when the people of the United States, all of a sudden, seemed to have tired of doing business on individual lines, and were madly rushing into all kinds of pools, trusts, and combinations. It appears that this contagion spread even to portions of the medical profession, for, all at once, a novel and well-conceived plan of organization was adopted by the clique in control of the American Medical Association, the purpose and design of which was to organize all of the

doctors in the country into one gigantic medical trust.

"There were at that time, and had been for many years, hundreds of county, State and other smaller medical societies, but these were all independent, and had no connection the one with the other, beyond that bond of sympathy which might naturally be expected to exist among a number of men engaged in the honorable undertaking of trying to uplift the calling or profession to which they had devoted their lives. The new plan proposed to change all this, and contemplated a grand scheme of organization by which all of these small, independent societies should be merged into or become mere dependents on the American Medical Association and subject to its laws and regulations. The project was loudly proclaimed and eloquently advocated in the recognized 'organ' of the association, known as *The Journal of the American Medical Association*; and the independent medical journals, not yet scenting danger or seeing the ulterior motives behind it, joined heartily in the endeavor to make the scheme a grand success. Paid 'organizers' were employed, who visited the local societies, and... at the last meeting it was announced that the membership was in the neighborhood of 20,000...

"One of the conditions of membership in the association is the subscribing to the official organ, mentioned above.... Not satisfied with the one national organ, great and powerful tho it is, and resentful of the spirit of revolt which was occasionally manifested in the independent medical press, each of the State societies was induced to establish a journal of its own, ostensibly to publish the proceedings of the association, but really, as it has afterward developed, to become whippers-in and drummers for the American Medical Association and its official organ. Then there began a systematic campaign against such of the independent journals as had refused to mold their opinions to suit the leaders at Chicago, and members of the association were boldly urged to stop their subscriptions thereto, and to refuse to read any sample copies of the same which might be sent to them. In pleased anticipation of the ultimate success of this effort to stop free discussion and to monopolize the medical press, the *California State Medical Journal* complacently tells us 'that the day of the privately owned medical journal is passing away and its place will be taken by *The Journal of the American Medical Association* and the various State journals.'

It is further charged that the officers of the association have acted arrogantly and insolently toward independent physicians and the independent medical press, and also toward manufacturers of and dealers in drugs; that an effort has been made to regulate and con-

trol the drug interests of the country, and that the "patent medicine" bills are the final outcome of this. The writer calls attention, in support of his charge of "arrogance," to a proposal, made in *The Journal of the American Medical Association*, to make it a punishable offense to criticize the action of Government medical officers in time of epidemic—based on occurrences in New Orleans during the recent yellow-fever outbreak. *The Journal* said:

"The time is close at hand for the creation by statute of a new variety of treason If it be treason in time of war for a man to betray his country's military plans, it certainly should be made treason for a man or a publication in time of deadly peril from disease, to foment, by false allegations, public lack of confidence in the Government's plan of rescue, and in the integrity and ability of the men (that is, the physicians) who risk their lives to save the community from unnecessary deaths. Than this, no treachery can be more base. Physicians, citizens, and the reputable press should join in asking stringent penalties for this crime against the nation, against humanity."

Exactly how much of this may be taken literally may be subject to doubt, but *The Druggist* takes occasion to protest against it as the effort of "a clique of political doctors" to "make it an infamous crime to doubt their infallibility or to criticize their conduct." It concludes:

"Here is a body of men much above the average in force of character, ability, and standing in their communities, with agents and emissaries scattered all over the country, forming an organization that can outwatch Argus with his hundred eyes, and outwork Briareus with his hundred hands. Instinct with one purpose, and that to secure legislation favorable to its own interests, it has a list of local political leaders of every organized and recognized party. This list is so arranged that the dominant politics in each county and congressional district are indicated, as well as the political affiliations of each member. It, therefore, knows no party. It affiliates with any, whatever may be its principles, provided their own selfish ends can be furthered. As was Jay Gould, they are Democrats in Democratic States and Republicans in Republican States. All parties look alike to them when seeking aid and influence in securing the enactment of laws which will give them the monopoly they seek."

With the physicians shouting "treason" and the druggists hurling back "conspiracy," the general public appears to be in the way of witnessing a sort of therapeutical civil war, which will doubtless be enjoyed by those who love a "scrap," however much it may be re-

gretted by the more serious-minded members of the community.

* * *

The above from the *Literary Digest* is interesting and entertaining, and while it contains much about which some discussion might be indulged in, we feel that it can be intrusted to our readers without extended comment. The galled jade winces, and it is not surprising that the *National Druggist*, representing on the one hand the rich manufacturers of secret remedies, and on the other the retail dealers who hand these remedies out across the counter to a suffering public, should raise its voice in the most stentorian protest of which it is capable. If the statement is true that "of the total volume of business of the retail druggists at least sixty per cent consists of proprietary medicines," and further than this, if the retail druggists as a class find this kind of business desirable, profitable, and satisfying to their ideas of honorable dealing and business integrity, it would not be surprising that the retail druggists themselves should raise a howl as loud and prolonged as that of the *National Druggist*. We feel justified in asserting that many druggists regard the nostrum business with contempt and even horror, and only carry it on because they apparently must do so at the present time or get out of the retail drug business entirely. They would regard anything which would do away with this necessity as a welcome deliverance.

If there is no public demand for this legislation, then it becomes the duty of those who know to enlighten the public mind, awaken the public conscience, and produce and provide a public demand. We, the physicians, are those who know, and our duty, too long neglected in this matter, is clear.

That a great many "manufacturers" would be hurt or ruined by such legislation we are perfectly willing to admit. In the Florida waters there is a parasitic fish, the ramora, which attaches itself to other fishes, sometimes to a tarpon, sometimes to a sheepshead, sometimes to a shark, and gains its livelihood by profiting by the activity of its host. It would be pretty rough on the ramora to be cast off from its "snap," indeed it might perish utterly if it was not able to form other attachments speedily; but it is readily conceivable that the host fish would rejoice at its own deliverance, and would be quite indifferent to the sad plight of the cast-off parasite. The simile is plain.

Now as to the physicians' "trust": yes, there is a physicians' trust, tho not quite the kind of a trust our friend the *National Druggist* would have us believe. There is a great body of physicians banded together in national, State, and county organizations, forming a great "trust," which has for its object the

raising of the standard of enlightenment, social standing and general efficiency of every doctor in these United States of America; which labors, year in and year out, to raise up and spread broadcast amongst all the people a knowledge of the truth, to the end that disease may be avoided altogether, or that its ravages may be limited and its epidemics confined; which seeks to encourage the research which has for its ultimate end the abolition of preventable disease from the face of this beautiful green earth, just now budding and blossoming in the warmth of the sunshine of spring; which is willing, if such abolition prove its own undoing, to turn back to mother earth, exchanging the scalpel for the pruning knife, the tubercle bacillus for the nitrogen-fixing bacterium, the pestle and mortar for the churn and butter paddle. If all these dear ambitions be at the same time heinous crimes, then are we indeed most guilty.

And yet, we are not quite like a "trust," neither; we are more comparable to a union. We are made up of many individuals, and seek to interest and involve all "eligibles" in the meshes of our conspiracy. And we have our walking delegates too, only they have no power to foment and declare strikes, and are chiefly engaged in preaching the gospel of brotherly love and higher personal and professional efficiency.

One of the most serious charges against us, in the opinion apparently of those who make it, is that we seek to improve our worldly standing by putting up the prices for our services. If my apple tree produces wormy, warty fruit, of small value in the market, and I cause it to produce smooth, plump and perfect fruit by the intelligent use of a germicidal spray, have I committed an offense or in any way harmed the consumer who pays me a better price for my better product? This is what the doctors' union seeks to do: it seeks to make better doctors, who are worth more in the market, confident that if they are worth more intrinsically they will obey well-established laws and will bring a better price. If this redounds to the good of the doctor, the patient shares with him the gain; for there can be no doubt as to the absolute lack of economy in employing a cheap doctor, who works for a small fee and is then most generally overpaid.

FOR SALE.—Seven room house, lots of outbuildings, two and one-half acres of land, all kinds of fruit, situated in one of the best bluegrass counties in the State. Practice has averaged \$2,500 for twenty years. Collections ninety-seven per cent. Price \$3,000 cash or in payments. Ill health cause of wanting to sell. For further information address 120, office of KENTUCKY MEDICAL JOURNAL.

HIDING THE SALE OF POISONS.

The following editorial is from the *Chicago Daily Tribune* of April 13th:

Protests continue to pour in against the proposed amendment to the regulations of the pure food bill relating to patent medicines, to which attention was called by *The Tribune* a few weeks ago. The bill as passed by the Senate made it unlawful to sell a patent medicine containing certain dangerous drugs without a label stating their presence and the amount of them. The amendment permits proprietary preparations having less than two grains of opium or one quarter of a grain of morphine to the ounce to be sold without such label to put the buyer on his guard.

There are two reasons why this should not be allowed. A quarter of a grain of morphine to the ounce may seem a trifle to the patent medicine manufacturer. The dose may be deadly for one who has never used morphine and is susceptible to its effects. The purchaser of a patent medicine which has been so heavily drugged may think an ounce is not too much to take at once and may put himself to sleep forever. There have been numerous instances lately of children killed by a patent medicine which was loaded with opium. There was nothing on the label to put the parents on their guard, and they unknowingly poisoned their children. That could not have occurred if there had been a decent law on the statute books.

In the next place the use of a patent medicine containing even an extremely small quantity of a drug like morphine may make him its slave. There is no question that thousands have become addicted to the use of narcotics in this way. If they had known what was in the nostrum they were taking they would not have touched it. Whenever a patent medicine contains such drugs as opium, morphine, or cocaine, even in the smallest quantities, the label should set out the fact. Then the purchaser will buy at his own risk.

There would not be so many buyers as there are now. The patent medicine men are aware of it, and that is the reason why they are lobbying so energetically in support of their dangerous amendment. It is strange that the members of the House committee are unable to see that they are co-operating in an attack on the life and health of the community. They are contributing to the spread of a baneful drug habit, which it is so hard to cure. The amendment is said to have been accepted "tentatively." It should be rejected peremptorily by the committee, and if the

amendment should be reported the House should make short work of it.

The proprietary medicine manufacturers have energetic agents at work in Washington. Organizations of physicians and other associations of citizens realizing the harm done by the indiscriminate and covert sale of poisons should bestir themselves to counteract their influence. Congress should be made aware that public sentiment is even more against the sale of unlabeled preparations containing poisons than it is against the sale of other fraudulent and deleterious commodities.

* * *

The editorial from *The Chicago Daily Tribune* reproduced above, taken in conjunction with two other articles in the same issue of the paper, one relating to the pure food bill and the other to the patent medicine phase of the tuberculosis problem, indicate that here is a paper which is no longer "muzzled." *The Tribune* has convictions as to duty, and in obedience to these convictions evidently has taken the bit in its teeth, has thrown patent medicines to the dogs, and is going to try to make an honest livelihood without the help of and without helping the concerns which pursue and feed upon the credulous public as a salmon does on a school of sardines. All honor to the *Chicago Daily Tribune*! May it soon have many followers in the field of lay journalism.

If every doctor who reads this will speak to his local editor about this matter, giving him to understand that certain things are expected of him, that *we* expect them, perhaps the happy day of the millennium can be hastened. Certainly it never will be if all of us do not try to do all that can be done by us to create a proper public sentiment and understanding in regard to this matter.

Collier's, Everybodys' and the *Ladies' Home Journal* have taken a stand in this matter for which they deserve the thanks and admiration of every member of our profession. Is it not melancholy and distressing that many of our medical journals, otherwise most excellent journals, have never opened their mouths on this subject, being apparently as effectually muzzled by their small pecuniary interests as any of the cross-road country papers. If there be any good excuse for the lay journals' attitude, and we believe there is no such good excuse, surely there can be none for the medical journal, which sins with its eyes open, and only bats them as it pockets the cash.

THE PHYSICIAN AS A SURGEON.

A Toast Delivered at Annual Banquet of the
Louisville Academy of Medicine,
March 7, 1906.

By G. A. HENDON, M. D., Louisville, Ky.

"A Surgeon is a Physician who can operate." In order that I may establish a line of logical sequence, you and I must have an identical conception of what is meant by the title of physician. We must first agree on a definition of the term. The interpretation which most closely harmonizes with advanced ideas is that a physician is one who, by education, experience and ambition is competent to deal intelligently with every form and degree of physical disaster that befalls mankind anywhere along the journey from the cradle to the grave. This definition is provided with two contingencies—competency and intelligence. There is a law both ambiguous and elastic which sets the measure of competency as it applies to physicians. It is the law of demand, and the demand is in turn regulated by the requirements of the community in which he labors. There is also a law, elastic but not ambiguous, which sets up the standard of intelligence as applied to the physician—the law of professional knowledge. I mean that degree of knowledge which is to be acquired by one who can perform the stupendous task of garnering into his mental storehouse the rich fruition of every field of medical tillage, to one who possesses the powerful and varied versatility of mind that will enable him to thrust his sickle into the ripened harvest of other men's experience in every field of professional endeavor. In the primal and restricted state of our knowledge, this demand could be met by any one of ordinary talent and a fair degree of energy. Unfortunately the development of man's mind has not kept pace with the rapidly moving van of medical progress and discovery.

No intellect, however gigantic its proportions; no zeal, however fervent; no energy, however tireless, can crystallize in one man's mind the diverging cubes and prisms which represent the wisdom now exclusively possessed by our grand and noble profession. There are among us those who yet remain a factor in medicine who deserve our highest respect and esteem, who are entitled to our friendship and honor and most sacred confidences, because they work conscientiously and unselfishly day in and day out, fulfilling the law of competency as formulated by the requirements of the people among whom they labor.

The doctor, with his proverbial commercial stupidity, has only been tardy in learning the lesson which the manufacturer, the merchant,

The fifty-seventh annual meeting of the American Medical Association will be held at Boston, Mass., June 5-8, 1906.

the presiding officers of great public utilities, and all industrial enterprises have long since appreciated and applied, and that lesson is this: the highest perfection of achievement can only be reached through the medium of the segregation of labor. Those of us in the medical profession who are confining our efforts within certain prescribed limits are only the products of a natural process of industrial evolution. We are making practical application of that rule which has wrought the full measure of success in other lines of professional and scientific endeavor. We are only putting in force a policy which safeguards to the very best advantage the trust reposed in us by the sick and afflicted.

In order that I may keep within the bounds of my text, let me focus upon the surgeon, although the same line of argument would apply to the internist, the aurist, the pediatrician, or any other department of special effort. It is but sane and wholesome to teach our young men that the moment they emerge from the shadow of their Alma Mater as graduates of medicine, they should become inspired with lofty aspirations and laudable ambitions. Teach them by precept and example to hitch their wagon to a star chosen from the bright and glorious constellation that shines with ever-increasing luster in the firmament of our calling. Let the alluring realm of Surgery be his goal if you please, and the plan of its attainment be his theme, and we have the proposition, as embodied in the toast, clearly presented. It has been my good fortune to observe certain of my colleagues who have worked out this problem with flattering success, though they have operated under either one of two widely differing conditions. The plan which is the simplest (by that I do not mean the easiest), the most acceptable, and the most dignified, and productive of the most finished and most polished, but not necessarily the most competent result, is that based upon the very rational idea of special preparation for the accomplishment of a definite object. This plan involves a year or two of post-graduate work in the surgical wards of large hospitals and big surgical clinics; supplemented by association in practice with some gentleman who has an extensive clientele. The results of this plan are almost always entirely satisfactory.

The other plan includes the means applied by those who are forced by stress of unfortunate circumstances to accept the more humble, laborious, and circuitous route which leads through the honorable and eminently respectable ranks of the general practitioner. His advance must be by slow and difficult stages, but he is given the opportunity to employ the faculties with which nature has endowed him, to mould the experience which fortune puts

within his reach, and fashion the same into a crude though adequate equipment for a creditable career in his chosen field. The most serious defect in this plan is not realized until its votary has begun to reap, now and then, a reward for his labor. He finds himself heavily encumbered by obligations to the friends and patrons he has acquired along the way. Such debts are not easily paid without transgressing the sacred law of gratitude, without betraying a trust, without violating a confidence. Equally embarrassing is the fact that he finds himself in an awkward attitude with reference to his professional brethren who engage in internal medicine, and from whom he must expect his surgical patronage.

After all, it is the personal equation that evolves the answer to this intricate problem. It is the personal attributes of the individual that decide the issue. The germ of success is cultured more luxuriantly in the mind that exalts character above intellect, honesty and integrity above mammon.

The laurel wreath of victory sits in graceful repose only upon the brow that has never stooped to do a brother hurt.

The genial warmth shed by the glow of a realized ambition reaches only the bosom that has ever responded to the awakenings of the nobler, purer, and unselfish emotions.

AMERICAN MEDICINE BECOMES A MONTHLY.

Our highly esteemed contemporary, *American Medicine*, will shortly cease to be a weekly and will be issued as a monthly medical journal. At the annual meeting of the stockholders the proposition was fully discussed and a large majority favored such a change. While we shall be sorry not to receive *American Medicine* every week, there is a wide field for it as a monthly. Its bright, progressive editorials, dealing with subjects always of great interest and importance to the profession, and its valuable original articles by men thoroughly competent to speak, have placed it in a very high position among medical journals of to-day. The acknowledged ability of the editors and the high character of the contributed articles will insure the production of an excellent monthly journal. We wish it success and we trust that it may always stand for everything good and for nothing that in any way will hinder the progressive advance of an enlightened profession.

In the treatment of acute keratitis Stevens recommends the following combination containing belladonna:

R	Atropinæ sulph	-----gr. i	06
	Acidi borici	-----gr. x	65
	Aquæ dest	-----ʒi	30

M. Sig.: One or two drops to be instilled into the conjunctivæ twice a day.

ORGANIZATION WORK IN KENTUCKY.

DR. MCCORMACK'S APPOINTMENTS.

The Council of the Kentucky State Medical Association, as announced in the April issue of the Journal, has arranged with Dr. J. N. McCormack to spend the month of May in visiting a number of the cities and counties of the State. The meetings he will hold and the addresses he will make will not be intended for the members of the medical profession alone, but will be directed even more to the

Dr. McCormack needs no introduction to the doctors and to the men and women of the State of Kentucky. We have only to say:

"Ladies and Gentlemen, here is Dr. McCormack; he will speak for himself." And he needs no eulogizing, and we do not pause to relate now and here his services in the past to the profession and people of Kentucky. The time will come when these will be better known and even more appreciated, and we defer our remarks until then.

Just at the present moment we desire only to bespeak for him the support of the whole profession of the State in the matter of giving

Appointments.	Date	Hour of Speaking	Arrive	Route	Leave	is- tance
Bowling Green.....	April 30	7:30 P. M.				
Glasgow.....	May 1	10:00 A. M.	7:40 A. M.	L. & N.	3:20 P. M.	25
Franklin.....	2	10:00 "	7:01 "	"	2:25 "	50
Russellville.....	3	2:00 P. M.	7:35 "	"	7:10 "	45
Elkton.....	4	2:00 "	8:50 "	"	5:15 "	32
Guthrie.....	4	7:30 "	5:55 P. M.	"	9:43 "	11
Owensboro.....	5	2:00 "	9:00 A. M.	L. H. & St. L.	8:40 "	40
Morganfield.....	7	2:00 "	9:45 "	I. C.	5:14 "	23
Henderson.....	7	7:30 "	6:05 P. M.	"	8:30 A. M.	88
Princeton.....	8	2:00 "	12:15 "	"	4:55 P. M.	47
Paducah.....	8	7:30 "	6:10 "	"	7:45 A. M.	41
Murray.....	9	10:00 A. M.	8:59 A. M.	N. C. & St. L.	11:58 "	19
Benton.....	9	2:00 P. M.	12:30 P. M.	"	7:32 P. M.	80
Madisonville.....	10	1:00 "	11:35 A. M.	L. & N.	3:55 "	80
Hopkinsville.....	10	7:30 "	5:18 P. M.	"	6:10 A. M.	36
Elizabethtown.....	11	2:00 "	11:35 A. M.	"	7:00 P. M.	144
Hodgenville.....	12	10:00 A. M.	7:30 P. M.	I. C.	7:00 "	11
Bardstown.....	14	2:00 P. M.	11:00 A. M.	L. & N.	6:08 "	56
Springfield.....	15	10:00 A. M.	7:05 P. M.	"	12:00 M.	20
Lebanon.....	15	2:00 P. M.	1:00 "	Drive	10:14 P. M.	10
Stanford.....	16	10:00 A. M.	3:50 A. M.	L. & N.	4:15 "	122
Lancaster.....	16	7:30 P. M.	5:13 P. M.	"	9:15 A. M.	62
Richmond.....	17	2:00 "	2:00 "	"	4:10 "	110
Winchester.....	17	7:30 "	5:00 "	"	7:10 "	16
Mt. Sterling.....	18	2:00 "	9:43 A. M.	"	4:10 P. M.	75
Lexington.....	18	7:30 "	5:10 P. M.	C. & O.	7:05 A. M.	34
Cynthiana.....	19	10:00 A. M.	8:24 A. M.	L. & N.	5:02 P. M.	14
Paris.....	19	7:30 P. M.	1:45 P. M.	"	5:45 "	
Georgetown.....	21	2:00 "	9:00 A. M.	Interurban	4:00 "	31
Versailles.....	21	7:30 "	5:00 P. M.		9:25 A. M.	24
Somerset.....	22	1:00 "	12:50 "	Q. & C.	3:08 P. M.	109
Danville.....	22	7:30 "	4:20 "	"	5:30 A. M.	44
Harrodsburg.....	23	2:00 "	5:50 A. M.	Southern Ry.	5:55 P. M.	18
Lawrenceburg.....	23	7:30 "	5:55 P. M.	"	6:35 A. M.	25
Shelbyville.....	24	2:00 "	8:45 A. M.	"	4:15 P. M.	15
Taylorsville.....	24	7:30 "	7:15 "	"	6:10 "	30
Owenton.....	25	1:00 "	6:59 P. M.	L. & N.	6:05 A. M.	17
New Castle.....	26	1:00 "	10:00 A. M.	"	4 00 P. M.	72

lay public, to the men and women who are the doctor's patients; to the lawyers, who are his friends and oftentimes his dearest enemies; to the preachers, whose hands he is popularly supposed to hold when he enters the sick room; to the teachers, who are brought into daily contact with the growing idea, and who have it in their power to do so much toward molding and shaping the expanding intelligence of the youths and maidens, directing them into channels of fruitful knowledge and healthful understanding.

him a hearing, of securing large audiences not only of medical men but also of the lay public.

There are very many things in which the lay public has an interest in common with us, and in handling these matters Dr. McCormack is a master. His native talents and his unusual and vast experience in this work have combined to give him an insight into the very heart of things, and while he is a man of peace, yet he carries a sword, or rather a shillalah, which he wields with the same grace that he uses when he applies an unguent balm. So

he never grows wearisome, but holds his audience to the end in rapt attention. And while some may go out with heads a little sore, all go out better in heart for having heard.

The itinerary is again published below. At each meeting place prominent physicians from nearby towns will occupy places on the platform. The President, the Councillors and other officers of the State Association will also take part in many of the meetings wherever it is possible. Every meeting place is accessible to more than one county, and physicians should make their arrangements accordingly. All the accessible members of the county societies should of course attend; even more than these it is desired to have the presence of those physicians who have not yet been "called," who are not yet members of the county society; and most of all perhaps is the presence of the laity desired, the men and women who are indissolubly connected with our daily lives, as we are with theirs.

THE SEVENTH DISTRICT.

Middleburg, Ky., April 5, 1906.

DR. JAMES B. BULLITT, Sec'y, Louisville, Ky.

Dear Doctor: I met the Casey County Medical Society on March 22nd. Thirteen of the fifteen doctors in the county were in attendance at the meeting and all took membership.

On March 23rd Dr. McCormack and I met the Whitley County Society, which we re-organized with about sixteen members.

On April 5th I met the doctors of Russell County at Jamestown and organized the Russell County Medical Society. The following officers were elected:

President—J. B. Scholl.

Vice President—L. D. Hammond.

Secretary-Treasurer—J. S. Rowe.

Members are as follows: W. D. Wolford, M. D. Hopper, J. E. Buster, W. D. G. Flannigan and R. D. Hovins.

I go to Wayne County on the 10th and to Clinton County on the 11th of this month.

Very truly yours,

J. T. WESLEY.

MIDDLEBURG, KY., Apr. 17, 1906.

DR. JAMES B. BULLITT, Sec'y,

Louisville, Kentucky.

DEAR DOCTOR—I visited the Wayne County Medical Society on the 10th inst. We had a good attendance of doctors and an enthusiastic meeting. I had to leave at noon for Clinton County, but there was an afternoon session, and I think every doctor present took membership. It is believed that some who were not at the meeting will also become members. The society had been doing little or nothing for a year or two, but the members all seem to be greatly encouraged, and I think the society

will do good work. There are some good men in the society. Dr. J. F. Young is secretary.

I visited the Clinton County Society on the 11th inst., at Albany, and had a very interesting meeting. Most of the doctors of Clinton county are young, vigorous men, who seem to take an interest in the work of the society. Dr. Bryan, the oldest doctor in the county, who has been practicing medicine forty-four years, rode nineteen miles horseback over very bad roads to attend this meeting.

The outlook for good work in each of these societies is very encouraging.

Very truly yours,

J. T. WESLEY,

Councilor Seventh District.

MEDICAL MATTERS IN INDIANA.

Nothing is as instructive as to occasionally commune with others and get away from ourselves. The advantages are twofold. First by comparison we see not only what others are doing, but we see what we are *not* doing; second, it is necessary to occasionally leave our own environment in order to improve the perspective and see ourselves, as Mr. Burns would put it, "as others see us."

This we had the opportunity of doing recently while attending a joint meeting of the Monroe and Owen County medical societies in Indiana. The success of this unusual meeting was largely if not entirely due to Drs. W. W. and O. K. Harris, of Ellettsville, where the meeting was held. There were ten papers upon the program, eight of which were presented, read and discussed. All were creditable papers and several would by common consent be accorded a distinguished place at any national or international gathering. The paper to which we invite special consideration is that of Prof. B. D. Myers, of the University of Indiana, upon the "*Present Medical Situation in Indiana*." On the one hand it dealt with the particular methods of instruction in the medical department of the University of Indiana, and on the other hand with the differences and relationships that exist between university or endowed medical schools and proprietary or unendowed medical schools. We must confess our surprise at the statements that were made, and still more our astonishment when we visited on the following day the University and saw the high order of work that was being done. The anatomical department is in charge of Professors Myers and Pohlman, who are Johns Hopkins men, and the standard of the University is absolutely in every detail the standard of the Hopkins University. In fact, a number of the Johns Hopkins students during their vaca-

tion come to the University of Indiana to take a special course. Until this year the University taught only the primary branches, but now a department is being established in Indianapolis in which the higher branches will be taught, thus giving a complete course which will be blended with the university course. If men are secured who will teach the higher branches with the same thoroughness that the primary branches are being taught, and additional hospitals erected to facilitate such a high order of educational work, the University of Indiana will be without a second as a medical school in the South, and will be the equal of any school in the United States, not excluding the Johns Hopkins. So far as the University of Indiana is concerned there is only one thing to be said, namely, Bravo! Let the good work proceed; but how about the State of Kentucky?

This brings us to the second part of Dr. Myers' paper, the proprietary or unendowed schools as opposed to the university or endowed schools. It must be admitted that there was a time when the proprietary school did excellent work, but since medicine has made such progress as it has in the last decade or two it is plain to all that to teach medicine commensurate with the progress that medicine has made, would require a yearly expenditure greater than any proprietary school is willing or able to make; therefore we frequently see in such schools men thoroughly indifferent and unqualified to teach and a parsimoniousness that shrivels and warps their every movement. No doubt Osler had this in mind when he said that the time has arrived when the unendowed school ceases to be of benefit to the profession, to the student, to itself or to the public.

We may delay progress, but we can not defeat it; therefore, how much better would it be to gracefully accept and reckon with the situation rather than resist and in the end go down in ignominious defeat. What we need is fewer schools and a higher standard. Then we would have better material and more careful preparation of this material. This would mean an improvement of the medical profession in all of its ramifications. State boards, which we all know are not as satisfactory as we would like them to be, would no longer have any excuse for challenging the right and the ability of any doctor to practice, and lastly, the delegate who so unsuccessfully works overtime on reforms at the medical conventions by fingering the wrong end of the question, and who, instead of eradicating any evils he may have in mind, is after all only whitewashing them, would instead of being a bore become a delightful curiosity.

AUGUST SCHACHNER.

Louisville, Ky.

REPORT ON PROGRESS IN SURGERY.

UNDER CHARGE OF IRVIN ABELL, A. M., M. D.,
Louisville, Ky.

Late Carcinomatous Metastases.—The Effect Upon Glandular Tissue of Exposure to the X-Rays.—The Surgical Treatment of Cancer of the Stomach.—Surgical Interference in Medical Nephritis.—Late Results in the Treatment of Inoperable Sarcoma by the Mixed Toxins of Erysipelas and Bacillus Prodigiosus.

CARCINOMATOUS METASTASES DEVELOPING OVER THREE YEARS AFTER REMOVAL OF THE BREAST WITHOUT LOCAL RECURRENCE.

By B. Farquhar Curtis, Annals of Surgery,
February, 1906.

Of fundamental importance in the decision of the curability of cancer by operation is the localization of the growth. When secondary deposits beyond the reach of removal have occurred, the continued growth of these nullify our efforts to obtain a cure. In certain cases in which recognized metastases have occurred, the primary tumor causes serious inconvenience, and, in the event that its removal did not necessitate an operation of magnitude, such removal is justifiable and advisable. Again under other circumstances, as when the patient is in vigorous condition and both primary and secondary tumors are easily removable, and when there are absolutely no other signs of further deposit, we may venture the removal of both growths. As a rule, however, distant secondary growths mean that the case belongs in the inoperable class. The occurrence of secondary deposits which gave no symptoms and could not be recognized at the time of operation for the original disease, but soon became evident afterward, is unfortunately very common. Our results in the removal of malignant disease have so greatly improved that we feel fairly confident of freedom from local recurrence, if the operation can be performed before the disease has spread too far. This freedom from local recurrence is often spoken of as a cure of the disease, and in fact a permanent cure is often effected. But in the individual case we are still uncertain as to the length of time which should elapse without local recurrence before the patient can be considered free from any danger of return. When operations were less complete and thorough than they now are, the number of patients who remained well for three years or more was not very great. It is not surprising then that late local recurrences, or late appearance of secondary tumors, were rarely observed. Various periods of time during which

the patient has remained free from recurrence has been set as the standard by which cures are to be determined; the author concludes that if we take into consideration not merely the local recurrences, but include the late appearing metastases, ten years is not too long, as shown by the list of cases reported in his essay. This list embraces five cases operated for carcinoma of the breast, all dying from late secondary growths; one at four years after operation, two at five, one at eight, and one at ten. The metastases were in three cases intrathoracic, in one the kidney and vagina were involved and in one the vertebrae and spleen. In addition the author quotes three cases of Poulsen dying of metastases from five to eight years after breast amputation; one of Schmidt dying seven years after; two of Koenig dying ten and thirteen years after; and one of Lubarsch dying from a pneumonia five years after breast amputation for carcinoma, in whose axillary glands cancer cells still existed, but which showed no mitosis. It may be suggested that these late growths are independent ones, and this hypothesis might account for some, particularly when the metastasis affects some organ usually involved in primary growths; but the numerous cases with involvement of the lungs and liver organs, in which primary carcinoma is rare, do not readily admit of this explanation. Some authorities argue that in most cases of carcinoma the actual metastases are much more frequent than supposed, and that probably few primary operations really eradicate all the disease, yet an apparent cure may be obtained lasting many years. The carcinomatous nodules left behind remain latent or may actually undergo retrogressive changes.

* * *

THE EFFECT UPON GLANDULAR TISSUE OF EXPOSURE TO THE X-RAYS.

By William J. Taylor, *Annals of Surgery*, March, 1906.

The beneficial effects of the X-rays have been so enthusiastically described by the advocates of its therapeutic use in glandular swellings and certain of the new growths, that a few of its disadvantages should be spoken of by those who see its after-effects and who are forced to operate upon tissues that have been long under its influence. The personal experience of the author is such as to lead him to advise against the use of the X-rays wherever there is a probability of the case coming to a formal surgical operation. On account of the alteration in appearance and character of the tissues where its use has been prolonged, operations which would ordinarily be simple and easy dissection become formidable and dangerous, as the tissues are matted together and thickened by fibrous material. This change in the character, both of the sur-

face skin and underlying tissue, is particularly well marked in cases of enlarged cervical glands—the so-called tubercular adenitis. The operation for removal of tubercular glands is ordinarily a difficult one, but after prolonged X-ray treatment the procedure is both tedious and hazardous; the glands can not be peeled out, or pulled away from the blood vessels and nerves by blunt dissection, but each step must be taken with the greatest deliberation and every particle of tissue that is removed must be separated by the knife or scissors. The blood vessels form the fibrous thickening of their sheaths, and the surrounding tissues can not be easily distinguished, and are only saved from being cut by the utmost vigilance. The dangers, the difficulties and the time consumed in the operation are thus very materially increased, and the belief of the author is that the only action of the X-rays in these cases is distinctly harmful. He reports in detail an operation for the removal of a breast, on which the X-ray had been used twenty-eight times; the difficulties of the operation were apparently greatly increased by such exposure. The report of the pathologist who afterward examined the breast shows a large amount of fibrillated connective tissue; section of the lymph nodes show chronic inflammatory change; the lymph sinuses are converted into solid cords; the skin is greatly thickened.

In view of the extreme difficulties and complications which are produced by its effects, the author believes that it should never be employed upon the tissues before surgical operation is undertaken.

* * *

THE SURGICAL TREATMENT OF CANCER OF THE STOMACH.

By William J. Mayo, *The Journal of the American Medical Association*, April 7, 1906.

The writer reviews the dismal record made in treating cancer of the stomach by medicinal means, a treatment that has resulted in, and must continue to result in, a 100 per cent. mortality. While cancers of other regions of the body are sent to the surgeon as soon as suspected, stomach cases in which the suspicion amounts almost to a certainty continue to be treated by medicinal means. Yet of all cancers, stomach cancers are most surgical, since the methods of treatment that are from time to time applied to external cancers have absolutely no effect on gastric carcinoma, and the history of medicine affords no example of a cancer of the stomach cured by medical means. Remarking that cancer of the stomach is the most frequent form found in the human body, he seeks an explanation of the fact that the medical profession has been slow to apply surgical methods to the cure of this common malady. His reasons are two: First,

the frightful mortality of the earlier operations, which discouraged the patient, the physician and the surgeon. Second, the difficulties and uncertainties of establishing an early diagnosis. His study of statistics shows the mortality of the earlier operations to have been from 60 to 75%, and states that to-day the mortality in the hands of men of experience in the operable cases is probably not above 10%, and in suitable cases nearer 5%. Operations undertaken with the patient in extreme condition from starvation and hemorrhage will continue to show a large death rate. He says, "These disasters should no more militate against the operation in suitable cases than general suppurative peritonitis should stand in the way of early operation in appendicitis." The thick gastric envelopes, permitting a firm suture hold of the outer tunics, and the abundant and easily controlled blood supply, insuring good healing, make the stomach a favorable organ from an operative standpoint. He quotes the statistics of Kocher, Kronlein, and Mikulicz, following which he reports 100 resections of Dr. C. H. Mayo and himself. As to results, seventeen of the 100 operations were excluded because performed for indurated ulcer, in which gastric resection seemed indicated on account of possible existing malignant degeneration or other sufficient reason. Three cancer cases were also excluded because a microscopical examination was not made. This gives sixty-three cases of gastric cancer in which radical operations were performed and which have been traced. Nine failed to live six months; fourteen, alive now, are too recent to be of value; forty lived from six months to a year, and twenty-three are alive now; twenty-five from one to two years and seventeen alive now; twelve from two to three years and ten alive; five from three to four years and four alive; one five years and is alive now. It will be seen that five lived over three years, one dying in three years and five months from recurrence in the liver. As but eighteen who survived the operation were operated on more than three years ago, they have 27% living three years and 22.2% alive and well over three years. Taking the most gloomy view possible, they have twenty-two operated on more than three years, with four dying as a result of the operation, five living over three years, or 22.7%, and 18.1% alive and well over three years, a showing which compares favorably with the operative results in other parts of the body. His review of the methods of diagnosis, in which occurs the following, is interesting: "A suspicion of cancer of the stomach which can not be disproved by known methods of examination within a short space of time should lead the conservative practitioner to explain his suspicions to the patient and ask for surgical consultation. He is a reckless

man who, under such circumstances, does not give the patient the benefit of the doubt. Exploratory incision is the only way an early diagnosis of cancer of the stomach can be established." He describes the steps of the operation employed in the Mayo clinic and closes with a brief consideration of the palliative operations in general use; the average prolongation of life after such procedures is from four to six months. "The operation merely prolongs a chronic invalidism by a few weary months which are without hope. The judge who says to the prisoner, 'I sentence you to death after five months,' has not given the prisoner a desirable intervening existence."

* * *

SURGICAL INTERFERENCE IN MEDICAL NEPHRITIS.

By Reginald Harrison, F. R. C. S., American Journal of Urology, February, 1906.

The author concludes that the present state of renal pathology and treatment relating to the large group of inflammatory affections of the kidney justify the attempts that have been and are being made to deal with some forms and stages of them on principles which are successfully applied to external parts of the body, which can be brought within reach of the sight and touch. Time and experience have shown that there are many pathological conditions of the kidney which are beyond the reach of any medicines that have been tried, and which have passed into these hopeless states by the continued presence of mechanical agencies which might have been arrested by mechanical means. An advanced pathology will doubtless appreciate more fully the effects of inflammatory tension as a factor in the production of permanent kidney disease. For instance: (1) In the direct damage that is done to renal tissue by excessive pressure which is caused by acute inflammation occurring within the area of the unyielding capsule of the kidney and the compartments it forms, as is so often seen in cases of acute scarlatinal nephritis. (2) In the damage inflicted on the kidney structure by the continued contraction of its thickened capsule. The pressure of a thickened capsule is capable of equaling that of a traumatic urethral stricture. (3) The tension which commencing in the kidney spreads to the entire circulatory apparatus and eventually leads to hypertrophy of the heart. This, as we all know, is caused by the increased efforts of the heart to drive the blood through the obstructed kidneys.

On these grounds the writer believes that surgical intervention for the purpose of relieving tension is indicated in some forms of renal disease. The following he regards as indications for relieving tension surgically in cases of nephritis, however arising: (1)

Progressive signs of kidney deterioration as shown by the persistence or increase of albumen when it should be disappearing from the urine as in the natural course of inflammatory disorders ending in resolution. (2) Suppression of urine or the approach of this state. (3) Where a marked disturbance of the heart and circulatory system occurs in the course of inflammatory renal disorders.

The question in a case of nephritis sometimes arises as to which organ should be selected for operation. Unless there be something to indicate it, such as the presence of pain, the author's experience leads him to conclude that this is not absolutely material to the issue. Both organs are usually involved in the inflammatory condition, and the relief of tension in one kidney aids the other. These features were in evidence in a case where acute suppression of urine followed an operation for internal urethrotomy. Guided by the intense pain over the region of one kidney, he performed a renal capsulotomy which was followed by the restoration of the urinary excretion and the recovery of the patient. During the fifty-four hours which intervened between the operation on the urethra and the simple division of the capsule of the kidney, only three or four ounces of blood-stained urine had been passed, and uremia was evidently imminent. The operation advocated by the author consists in exposure of the kidney through the usual lumbar incision and a linear incision through its capsule, two or three inches in length, sufficient to relieve any tension that exists: in the event that a stone is suspected, exploration of the kidney pelvis is practised through an incision made through the parenchyma of the convex border; the desired object being effected, a drainage tube is inserted so as to remain in contact with the kidney and the wound closed with sutures and dressed. He does not favor the decapsulation of the kidney, believing that the new capsule following such an operation is of a tough, contracting, fibrous nature that will cause more tension than the one removed.

* * *

LATE RESULTS OF THE TREATMENT OF INOPERABLE SARCOMA BY THE MIXED TOXINS OF ERYSIPELAS AND BACILLUS PRODIGIOSUS.

By William B. Coley, *The American Journal of the Medical Sciences*, March, 1906.

The author dates the beginning of his well-known work in this line back to 1884, at which time he observed at the New York Hospital a patient with a malignant round-celled sarcoma of the neck, four times recurrent and then inoperable, in whom an attack of erysipelas had accidentally occurred shortly after the last operation in attempting to remove the

growth. A few days after the first attack had subsided, a second attack followed, lasting for a week. During these attacks the tumor entirely disappeared and the patient left the hospital in good health. He succeeded in tracing the after history of the patient and found him alive and well in 1891, seven years later. Following this observation he began the treatment of inoperable malignant growths by the production of an attack of erysipelas through inoculation of the streptococcus of erysipelas. Further experience convinced him that it was extremely difficult to produce erysipelas at will, and further that the curative properties of erysipelas are derived, in a measure at least, from the toxic principles of the streptococcus, that might, hence, be utilized without an actual attack of erysipelas, which is not without danger, as two fatal cases in his hands have proved.

In December, 1892, he began the use of the toxin of the streptococcus, injecting it directly into the tumor, finding that it produced the same constitutional reaction observed in a mild case of erysipelas, which always subsided in from twenty-four to forty-eight hours. In order to intensify the action of the erysipelas toxin he then combined with it the toxin of the bacillus prodigiosus. In an earlier paper published in 1893 he ventured an explanation of the curative action of the toxins based upon the assumption that malignant growths are due to an extrinsic cause, or causes, or the presence of some micro-organism. While during the twelve years that have elapsed no definite facts have been brought forth to prove this assumption, a larger clinical knowledge has convinced him of the correctness of this theory; malignant growths are more or less endemic; it has been apparently proven to be mildly contagious in man, conclusively so in animals, the most significant fact being that successful inoculations of carcinoma have been made in mice with tumor tissues kept for long periods of time, in some instances, in Ehrlich's laboratory, for more than a year. It is hardly conceivable that a living carcinoma cell, even when kept at a very low temperature, should retain its vitality for such a period of time, while it is quite in harmony with our knowledge of germs that a micro-organism should be able to live under such conditions. Granting the assumption that malignant tumors are parasitic in origin, it is easy to conceive that the toxin used might produce such changes in the blood serum as to destroy the parasite or inhibit its growth. The toxins are to be prepared so as to conform to the specifications that have been demonstrated by experience to be desirable. The method of employment and the technique of administration are described. If improvement does not occur by the end of the fourth week

it is probable that none will occur. The curative action of the toxin varies with the different varieties of sarcoma, being most effective in spindle-celled and least effective in melanotic sarcoma. With this latter type he has had no permanent success, although cases have remained well under its use for four years. In the original paper he had collected thirty-eight cases of malignant disease in which an attack of erysipelas had occurred by accident or design; in twenty-three the attack was accidental, in fifteen the result of inoculation. Seventeen cases were carcinoma, seventeen were sarcoma, and in four the type of growth was doubtful. Of the seventeen cases of carcinoma, three were permanently cured; in addition, one, a probable carcinoma, was well five years after the attack of erysipelas; the remaining thirteen showed more or less temporary improvement. Of the seventeen cases of sarcoma, seven, or 41%, were well and free from recurrence from one to seven years after the attack. Of the remaining cases some showed marked improvement, the tumor entirely disappearing, but recurring some months later. Since the publication of his first report, further experience has enabled him to report a total of thirty-six personal cases, in which the treatment may be classed as fairly successful; of this number five are well at less than one year; four well from one to two years; three well from two to three years; five well from three to five years; twenty-one well from five to thirteen years, ten of which are well over ten years. In five of these cases recurrence took place and proved fatal, one after remaining well eight years, one after 3.25 years, one after 2.5 years, one after seven months and one after six months.

The author has tabulated sixty cases of complete or partial successes in the hands of other surgeons as follows: twenty-seven patients were alive and well from three to twelve years after treatment; twelve remained well less than a year; in six the tumor disappeared and the patient was alive and well from one to two years; nine from two to three years; twelve from three to five years; ten from five to twelve years. Five cases recurred within periods of from six months to two years and two died during treatment.

He reports twelve cases, three personal and nine from other surgeons, of sarcoma of the extremities, in which the toxin treatment has produced a cure and rendered amputation unnecessary; eight of these cases were alive and well at from three to six years, two at the end of one year, and two were observed less than six months. From these latter cases he concludes it justifiable to give the toxin treatment a trial before amputating.

COUNTY SOCIETIES.

Barren County Medical Society. We have not been reporting our meetings for quite a while, and you may have come to the conclusion ere this that we have died out, but I wish to assure you that such is not the case. This promises to be the banner year of our history. We have a greater number of members and they are taking a greater interest in our meetings than usual. Our April meeting was held April 13th, in the office of Dr. F. J. Taylor, our usual place of meeting, with a large attendance from city and country. Dr. Jepson, the president, being absent on account of illness, the vice-president, Dr. J. S. Leech, presided.

Reports of cases by Drs. Botts, J. M. Taylor and others were discussed by the society. The next thing in order was a practical, concise and quite original paper on "*Abortion*," by Dr. R. S. Plumlee. The noon hour having arrived, the discussion of Dr. Plumlee's paper was deferred until the afternoon session, and the society adjourned and repaired in a body to Frank Frei's restaurant for dinner. During the dinner hour we were highly entertained by Colonel J. M. Biggs, with such familiar and popular songs as "*My Old Kentucky Home*" played on one of his powerful gramophones. This was indeed one of the most enjoyable features of our meeting, and we would suggest to our neighboring county societies that if they will inaugurate a system of dining together and spending an hour in socializing and getting better acquainted, it will conduce to the betterment of our societies generally.

The afternoon session opened at one o'clock and the society entered into the discussion of Dr. Plumlee's paper. We regret that we have not space to make a full report of this discussion. It suffices to say that in the round-up, the consensus of opinion was about this: "Stave off the abortion as long as it is safe to do so," and "Do not encourage the dilation of the os until you have to."

Dr. W. C. Smith's paper on "*Valvular Insufficiency*" was next in order. We regret that owing to the lateness of the hour this paper was not discussed as extensively as its importance demanded.

Our next meeting will be held on May the 8th, when we hope to have another good attendance.

F. J. TAYLOR, *Secretary.*

The physicians of Boyd County have organized a *Physicians' Protective Association*.

It is the aim of the organization to

1. Protect its members.
2. Have all bills due members paid as promptly as other bills are now paid.
3. Regulate fees. No exorbitant fees will

be allowed, but a reasonable charge, with prompt settlement of same, will always be the rule.

4. No person will be refused treatment because of poverty, but persons who have owed bills unjustly long, through carelessness or dishonesty and who are able to pay, will have to do so in the future.

The Boyd County Medical Society held its regular monthly meeting on Thursday, March 1st.

Dr. W. L. Gambill read an excellent paper on "Ante-partum Hemorrhage."

The time of meeting has been changed from the first Thursday in each month to the first Monday. All members are urged to attend, and every physician in the county is cordially invited to become a member.

Essayists for April meetings were appointed as follows:

Dr. Smithfield Keffer, "Strychnia"; Dr. J. D. Muttters, "Pulmonary Tuberculosis."

SMITHFIELD KEEFFER, *Secretary*.

The County Board of Health of Calloway County, composed of Judge A. J. G. Wells, County Judge; S. L. Holland, elected by the Fiscal Court; Drs. E. B. Curd, of New Providence, J. G. Hord and W. H. Graves, of Murray, met on Saturday, April 7th, and organized said Board and elected W. H. Graves as Health Officer.

The Carlisle County Medical Society met at Arlington, March 6th. The President and Vice-President being absent because of physical indisposition, the meeting was called to order by the Secretary at 10:30 a. m., and Dr. R. T. Hocker was elected President pro tem.

Rev. Mr. Hilliard led the devotional exercises, after which the Committee on Arrangements was heard. The minutes of the December meeting were read and approved.

Dr. W. J. Jackson read a part of his paper on "Conservative Obstetrics," and while it was short and incomplete, sufficient points were made to bring out a liberal discussion.

Dr. T. D. Bugg read a scientific paper on "Fracture of the Skull," which was generally discussed.

Dr. W. E. Gohlson was on the programme for a paper on "Infantile Eczema," but failing to have a paper he made a brief talk on the subject which elicited considerable discussion. Dr. Payne's paper on "Patent Medicine" was held over because of lack of time.

Dr. Hocker, acting Chairman, appointed a committee on neurology, consisting of Drs. Peck, Lankin, and Crouch, this having been overlooked at the last meeting.

It was then moved and seconded that the meeting adjourn for dinner, which was served at Hotel Victor. The next meeting will be held at Cunningham the first Tuesday in June.

Those present at the meeting at Arlington were Drs. Owen, Peck, Hocker, Jackson, Crouch, Moreley, Bugg, Payne, Elzy, Lankin, Gohlson, and Willingham.

E. B. WILLINGHAM, *Secretary*.

The Carroll County Medical Society met in regular quarterly session in the parlors of the Hotel Richland on April 10th. The annual election of officers resulted as follows:

President—B. L. Holmes.

Vice-President—J. P. Wheeler.

Secretary-Treasurer—F. M. Gaines.

Censors—S. E. Hampton, J. R. Hilling.

Delegate—N. C. Brown.

Dinner was served by the society at Hotel Richland.

At the afternoon session Dr. August Schachner read a very interesting paper on the "Practical Considerations of Gastro-enterostomy, Its Indications and Limitations," which was discussed by Drs. Louis Frank, J. G. Sherrill, W. L. Nuttall and G. F. Gaines.

Dr. Wm. Cheatham, who was to read a paper on "Contagious Ophthalmia," was unable to be present, much to the disappointment of the members of the society. Dr. A. O. Pfingst, however, very ably took his place and gave a very good talk on "The Contagious Diseases of the Eye," which was discussed by Dr. R. B. Cochran.

Besides having a fairly good attendance of members, we had with us Drs. J. G. Sherrill, August Schachner, A. O. Pfingst, and Louis Frank, all of Louisville; W. L. Nuttall, New Castle; and A. B. Cochran, G. F. Gaines and Dr. Dennie, of Madison, Indiana.

F. M. GAINES, *Secretary*.

The Fayette County Medical Society met March 15th at eight o'clock p. m., in its room at the Public Library. Dr. Tuley, of Louisville, was present and was asked by unanimous vote to sit with the society as a correspondent member.

Dr. Roberts read a paper on "Patent and Proprietary Remedies." The members of the society seemed generally of the opinion that the first thing to be done by physicians toward remedying the evil is to quit prescribing proprietary mixtures and compounds, and to formulate their own compounds and mixtures. Then the proprietary compounds would cease to have a sale or would have to go over into the class of out-and-out patent medicines and advertise to the public. Regarding the patent medicine business, it was suggested that it would be a good plan to boycott those drug-

gists who make themselves especially obnoxious in the handling of patent medicines.

Dr. I. E. Shirley's letter in regard to Dr. J. N. McCormack's "May work in Kentucky" was presented, and a motion inviting Dr. McCormack to come to Lexington in the course of his itinerary was made and carried.

W. H. SMITH, *Secretary*.

The Franklin County Medical Society held its regular monthly meeting at the office of Dr. Williams, on Saturday, April 7th, with the following members present: Drs. Ely, Price, Montfort, Minish, Garrett, Williams and Mastin.

Minutes of previous meeting were read and approved, and a vote of thanks tendered Ebner & Company for a box of cigars.

Dr. Montfort reported a case of uremic convulsions in a patient pregnant six months, which he failed to control until the uterus was emptied.

The essayist being absent, the society requested Dr. Price, City Health Officer, to give an account of the smallpox situation. He reported three cases, all of which have been removed to the pest house, are convalescent and will be released this coming week. He said the worst case occurred in a man who had never been vaccinated; the other two patients had been vaccinated some years ago and they had very mild cases with very slight eruption. He said in the ward vaccinations he found fifty-two out of seventy-five children not vaccinated; the physicians assisting him reported the same proportion. Dr. Price further said that the order of vaccination would continue until the whole city had been gone over. The order refers to all who have never been vaccinated and all who have not been vaccinated within the last five years.

The society condemned the action of the Business Men's Club in opposing vaccination and unanimously adopted the following resolution:

"Resolved, that it is the sense of this society that vaccination properly done is one of the greatest blessings enjoyed by mankind for the prevention of smallpox and that we hereby approve of the action of the Health Board in ordering vaccination at this time."

There being no further business, the society adjourned to meet the first Saturday in May.

F. W. MASTIN, *Secretary*.

We, the physicians of Harlan, Kentucky, the only physicians in Harlan County who are qualified by law to practice medicine, on February 19th held a meeting in Harlan and organized a society to be known as the *Harlan County Medical Society*. The following named officers were appointed:

President—W. T. Nolen.

Treasurer—N. S. Howard.

Secretary—G. P. Bailey.

The regular meetings of this society will be held the second Monday in each month, in Harlan. The society will be governed by the rules and regulations of the State Medical Association.

W. T. NOLEN, *President*;

N. S. HOWARD, *Treasurer*;

G. P. BAILEY, *Secretary*.

The Henderson County Medical Association met in the office of Dr. Dunn, Monday, March 26th, at 8 p. m.

Several clinical cases were reported. Dr. Arch Dixon read a paper on "*Adventitious Sounds of the Heart*," which was timely and enjoyed by those present.

Dr. M. C. Dunn read a good paper on "*Hypertrophy of the Heart*."

The papers were jointly discussed by Drs. Quinn, Edwards and Hancock, and closed by the essayists.

SILAS GRIFFIN, *Secretary*.

PADUCAH, KY., April 3d, 1906.

The regular meeting of the *McCracken County Medical Society*, held at City Hall, Paducah, Ky., March 28th, 1906, was an interesting and important meeting. The meeting was called to order by the President, Dr. C. H. Brothers, with Dr. C. Z. Aud, of Cecilian, Ky., President of the State Medical Society, and Dr. W. W. Richmond, "King of the Penny-rile," Councilor First District; Drs. V. A. Stilley, E. G. Thomas and J. S. Stone, of Marshall County Medical Society, and the following members of the McCracken County Medical Society present, viz.: Drs. Nelson, Caldwell, Hall, Kimbrough, Bass, Stewart, Purcell, Holland, Troutman, Brooks, Young, Williamson, Stuart, Childress, Earle, Hoyer, Sights, Coleman, Smith, Graves, Reynolds, Boyd, Harper, Sears, Lightfoot and Reddick.

Dr. P. H. Stewart read an interesting paper on "*Some Suggestions for the Prevention of Venereal Diseases*." This paper was the fourth of a series of papers along the line of preventive medicine which our society has had the pleasure of listening to during the past few months. The paper was entertainingly discussed by a number of the doctors present, after which Dr. Aud addressed the society at some length relative to medical organization and the importance of adhering to and upholding our organization.

His address found favor with our doctors, and we feel grateful at his coming among us in an official capacity, and we believe the doctors of Kentucky made no mistake in elevating to the exalted position of President of the State Medical Society this enthusiastic worker.

After the business of the society was transacted the doctors repaired to Hawkins' Cafe, where a banquet was tendered our visiting brethren. We observe that staid, dignified doctors, when they gather in social intercourse 'round the banquet table, become as a lot of colts; toasts, wit and repartee were indulged in until a late hour.

J. T. REDDICK, *Sec'y.*

The Mercer County Medical Society met at the Y. M. C. A. rooms, Tuesday, March 13, 1906, Dr. J. Tom Price, the president, in the chair. The members present were Drs. J. Tom Price, A. D. Price, W. D. Powell, M. S. Forsythe, T. O. Meredith, C. P. Price, M. H. Sutherland and W. H. Witherspoon. The minutes of the previous meeting were read and approved.

Dr. Sutherland read a paper on "Postpartum Hemorrhage," which was freely discussed.

Dr. M. S. Forsythe reported a case of compound comminuted fracture of femur with rent in bladder, as found at autopsy.

The society moved, as an evidence of appreciation, to thank Senators McCreary and Blackburn for their action in the pure food bill, also to thank our State officials. It was also voted that the society buy a hundred copies of the American Medical Association Code of Ethics.

The question of the life insurance companies desiring to reduce the examination fee from \$5.00 to \$3.00 was brought up. The members present were all of the opinion that \$5.00 is small enough, and the society has a law that the charge for examinations for life insurance companies shall be \$5.00 as has been the rule heretofore.

W. HORACE WITHERSPOON, *Secretary.*

The Monroe County Medical Society met at the Clancy House, Tompkinsville, Kentucky, Thursday, December 21, 1905. Drs. Bedford, Bushong, Duncan, England, Hamilton, Palmore, Simpson and Walden were present.

After disposing of the clinic present, Dr. Hamilton reported six cases of pneumonia seen within the month, all of which made good recovery.

Dr. Thomas H. Bedford, of Meshack, who has not missed a meeting, was elected president to succeed Dr. Duncan, who hasn't missed any meetings either during his two years as president. Dr. O. P. Hamilton, of Gamaliel, was elected vice-president to succeed Dr. Bedford, and Dr. E. E. Palmore re-elected secretary and treasurer. Dr. W. B. England, Tompkinsville, elected censor to succeed Dr. Walden. The meeting then adjourned to meet at Drs. Bushong & Duncan's office on January 18, 1906.

At its January meeting Dr. J. F. Marrs, of Boles, was elected to membership.

Dr. England read a paper on "La Grippe," which elicited the following discussion:

Dr. Hamilton: I agree with Dr. England that it may be aborted if patient can be seen early enough, but that is scarcely possible as you are never sent for early. Just treat it symptomatically—meet indications with appropriate remedies. Give magnesium sulphate for bowels, heroin muriate for cough and feed patient plenty of good nourishing, stimulating food. Strychnine especially is useful in cases of old people.

Dr. Smith: If a wealthy patient has it, it is "La Grippe"; if an ordinary patient, it is "Grippe," and if a negro, it is "Distemper." Calcium sulphide is the most appropriate remedy early in the trouble.

Dr. Simpson: My treatment is simple. I like whisky, and give heroin for cough. If a diarrhea is present I wash out bowels and give an anodyne. Stimulate with whisky and stimulating food.

Dr. Bushong: A routine treatment with me is to clean out first, then give quinine salicylate, caffeine and bryonia. Stimulate with whisky and strychnia. You don't have to tell your patient to go to bed and be quiet.

Dr. Bedford: If you give whisky, give it as hot as can be borne.

Dr. Duncan: Having made a diagnosis of la grippe, if just attacked I give a mercurial purge, followed by salol, phenacetin and quinine salicylate, two and one-half grains every three or four hours till patient is comfortable. The monkey-wrench at each end of the spinal column will slip off in about twenty-four hours and the patient will tell you he is feeling comfortable, but never felt as weak in his life. Then stimulate with whisky, not in teaspoonful doses but an ounce or two every two hours. The fellow's wife will think you are trying to get her husband drunk again, but just tell her as long as he can walk a crack he is all right.

The society then adjourned to meet the third Thursday in February with Dr. Simpson to give a paper on "Pneumonia." The secretary failed to attend the February meeting, so no record was made of that meeting.

The March meeting was the best yet. Dr. J. W. White, of Akersville, the jolliest of the jolly, was present and was elected to membership. The following members were present: Drs. Bedford, Bushong, Duncan, Marrs, Bristow, Palmore, Smith, Simpson, Walden and White.

Dr. Bristow presented a patient, age twenty-three, with gunshot wound in abdomen; shot December 30th with a thirty-eight calibre pistol, ball entering one and a half inches below umbilicus and about an inch to right of median

line. An abscess formed in a few weeks and was incised about an inch and a half to right of spinal column and on level with wound in front, but no ball was found. Portions of the clothing escaped with the contents of the abscess.

The ball was to-day located and removed from left side of spine (about two inches to left) on a level with wound in front. The negro never had any trouble with the bowels after being shot, although the contents of the abscess smelled fecal. Abscess discharged only three or four days.

Dr. Simpson's lecture on "Pneumonia" was excellent. Treatment given as palliative and supportive, liquid diet, stimulation with whisky or brandy, preferably brandy. For pain give Dover's powder or heroin, antiphlogistine to chest, thick and hot, covering whole chest. Give calomel in small doses to stimulate secretions.

Dr. Duncan: My experience is that antiphlogistine does not always pan out. I would treat the patient, not the pneumonia.

Dr. Walden: Support your patient and eliminate poison. Give alkaline treatment, sodas and salines.

Dr. White: Try bryonia, echinacea and aconite. Stimulate with brandy, whisky and strychnine.

Dr. Smith: Gelsemium for congested brain, Dover's powder for pain; leave off whisky and brandy till resolution; heroin to control cough, though it may colic your patient.

Dr. Palmore reported a case of manslaughter where trephine operation had failed to give relief and patient died fifteen hours after operation. It had been stated that the defendant's attorneys were going to shift the responsibility of death on to the doctors doing the operation, which brought out quite a discussion, every member of the society agreeing to do his part to fight the malpractice suits of any other member of the society.

The society then adjourned to meet at Tompkinsville the third Thursday in April, Dr. Bristow to read a paper on "Cramp Colic," and Dr. Walden to lecture on "Medical Jurisprudence."

E. E. PALMORE, *Secretary*.

At a meeting of the *Muhlenberg County Medical Society*, at Central City, Ky., on March 21st, 1906, Drs. J. G. Bohannon, A. Lewis, J. W. Koontz, were appointed a committee on Necrology, and reported as follows:

"Whereas, the grim reaper has invaded our ranks since our last meeting and taken from our councils two of our society, we beg to report as follows:

"First. Dr. Benjamin Woodburn, of Bremen, died February 24th, 1906, in his seventy-second year, a practitioner of forty-six years'

standing, and while he was unable to do active practice for several years, was always ready with his counsel, and may be said to have died in the harness. He is survived by his widow and two sons, Dr. Clarence Woodburn, of Bremen, and Dr. James Woodburn, of Earles, Kentucky.

"Second. Dr. L. F. Bard, of Greenville, Ky., in his sixty-sixth year, graduated at Nashville, Tenn., in 1878, and had been actively engaged in the practice until one year since, when he developed carcinoma, which ended his mortal career on March 17th, 1906. He is survived by his widow and three sons, aged respectively seventeen, fourteen and ten years; therefore be it

"*Resolved*, That the Muhlenberg County Medical Society extend their condolence to the families of the deceased;

"*Resolved*, further, That a copy of these resolutions be sent to the families of the deceased and the record, and to the *Central City Republican* and *KENTUCKY MEDICAL JOURNAL* for publication.

"J. G. BOHANNON, M. D.

"A. LEWIS, M. D.

"J. W. KOONTZ, M. D."

The *Nelson County Medical Society* met in the City Hall in Bardstown on March 7th with nine members present, Dr. J. B. Overall, President, in the chair.

Our District Councilor, Dr. R. C. McChord, of Lebanon, was present and gave an interesting talk on the importance of organization and other matters of interest to the profession.

The election of officers for the ensuing year resulted as follows:

President, J. J. Wakefield, Bloomfield; Vice-President, W. L. Heizer, New Haven; Secretary-Treasurer, Hugh D. Rodman, Bardstown, and Dr. J. E. Smith, Bardstown, Censor for three years.

A symposium on "Scarlet Fever" was opened by Dr. B. E. Gore, who spoke of the throat, neck, ear, and mastoid complications. Dr. J. E. Smith spoke of the acute symptoms and of joint complications. Dr. Rodman spoke of the renal complications and the importance of frequent urinary tests and their continuance until health is fully restored, no matter how mild the case. He also emphasized the fact that nephritis oftener follows mild cases than severe ones. All of these different phases were freely discussed by members present.

It was moved by Dr. W. S. Heizer that the President appoint a committee of three to procure the signatures of all the physicians in Nelson County to an agreement not to make any life insurance examinations for less than \$5.00. This motion was carried, and the Pres-

ident appointed Drs. J. J. Wakefield, W. L. Heizer, and J. E. Smith.

On motion of W. L. Heizer, which was carried, the President appointed four members, Drs. J. E. Smith, H. E. McKay, B. E. Gore, and Hugh D. Rodman, to present a clinical case each at the next meeting.

The society then adjourned to meet on Wednesday, June 6th, unless the Secretary shall change the time to correspond with the time when Dr. J. N. McCormack will lecture here in May. Come, brothers from the country, and we will give you dinner and cigars.

H. D. RODMAN, *Secretary*.

Following is the programme of the Pulaski County Medical Society.

JANUARY.

Lobar Pneumonia Dr. Allen
Acute Bronchitis Dr. C. E. Cain
Croupous Laryngitis Dr. Norfleet
Normal Labor Dr. Price
Contused Wounds Dr. Hatfield
Pyosalpinx Dr. Reddish
Opium, Uses and Abuses..... Dr. Jasper
Doctors' Vows for New Year.... Dr. Owens

FEBRUARY.

Pleurisy Dr. Chumbley
Empyema Dr. A. W. Cain
La Grippe Dr. Bolin
Chronic Bronchitis Dr. Isaacs
Fractures of Fore-Arm with application of bandage for Colle's fracture Dr. Warren
Aconite Dr. Griffin
Variola Dr. Samuel Scott
Chronic Parenchymatous Nephritis Dr. S. F. Parker

MARCH.

Acute Articular Rheumatism... Dr. Norfleet
Chronic Articular Rheumatism... Dr. Taylor
Gonorrhea Dr. C. E. Cain
Curettage in Country Practice..... Dr. Price
Injuries to Elbow Joint..... Dr. A. W. Cain
Influence of Climate and Altitude

on Tuberculosis Dr. Hart
Digitalis and its Uses..... Dr. Dye
The Successful Doctor... Dr. J. W. F. Parker

APRIL.

Rubeola Dr. Jasper
Varicella Dr. Hatfield
Diphtheria and Sequelæ..... Dr. Bishop
Fracture of Skulls Dr. Reddish
Postpartum Infection Dr. Allen
Mercury, its Uses Dr. Bolin
Chorea Dr. Isaacs
Care of Breast and Nipple During

Puerperium Dr. S. F. Parker

MAY.

Enuresis Dr. Chumbley
Ephemeral Fever Dr. Dye
Ergot, Uses and Abuses Dr. Hart
Asthma Dr. Taylor

Appendicitis Dr. Warren
Mitral Regurgitation, Its Effect.. Dr. Norfleet
Injuries of Abdomen, Surgical

Treatment Dr. Griffin
Surgical Aspects of Gastric Disease Dr. A. W. Cain

JUNE.

Typhoid Fever Dr. C. E. Cain
Erysipelas Dr. Price
Menopause Dr. J. F. Parker
Intestinal Antisepsis..... Dr. Bohn
Acute Ileo-Colitis..... Dr. S. F. Parker
Version Dr. Allen
Gall Stones Dr. Reddish
Anæmia Dr. Owens

JULY.

Hysteria Dr. Isaacs
Cholera Infantum Dr. Norfleet
Dysentery Dr. Jasper
Lienteric Diarrhoea..... Dr. Dye
Infant Feeding Dr. Griffin
Bismuth Dr. Hart
Fissure in Ano Dr. Warren
Melancholia Dr. A. W. Cain

AUGUST.

Eczema..... Dr. C. E. Cain
Preparation of Patient for Operation Dr. Hatfield
Post-Nasal Catarrh Dr. Price
Suppurative Hepatitis Dr. Allen
Migraine Dr. Owens
Strychnia Dr. Taylor
Alkalometry Dr. Kelley
My First Year in Practice... Dr. S. F. Parker

NOVEMBER.

Occupational Neuroses Dr. Griffin
Gangrene Dr. Reddish
Herpes Dr. Hart
Ptomaine Poisoning Dr. Owens
Nostrums Dr. Warren
Relations of Druggist to Doctor... Dr. Porter
The Doctor's Duty to Laity.... Dr. C. E. Cain
The Medical Profession of "Old Pulaski" Dr. Norfleet

The Scott County Medical Society held its regular session at the Georgetown City Hall, on March 10, 1906, Dr. D. B. Knox presiding. Those present were Drs. Crutchfield, Allphin, Moore, Coons, Lewis, Knox and Peak.

After reading minutes of former meeting, which were approved, Dr. Allphin read an interesting paper on "Placenta Previa," which was very fully discussed by Drs. Lewis, Knox, and Crutchfield.

Dr. Coons read a short but interesting paper on "Treatment of Pneumonia," the discussion of which was entered into generally by all present.

Dr. R. I. Peak was admitted to membership, after which the Society adjourned to meet the first Thursday in June.

JOHN E. PACK, *Secretary*.

The Taylor County Medical Society met in annual session at Campbellsville Dec. 7, 1905. After the regular order of business the election of officers was held which resulted in the election of the following officers for the ensuing year:

President, C. V. Hiestand, Merrimac; Vice-President, B. T. Black, Campbellsville; Secretary-Treasurer, J. B. Buchanan; Delegate, J. L. Atkinson; Censors, O. M. Kelsey (three years), B. T. Black (two years), H. G. Sanders (one year).

* * * *

The Taylor County Medical Society met in regular session March 8, 1906. The regular order of business was dispatched.

Drs. Atkinson and Sanders presented a patient, a case of gun-shot wound of leg in which a charge of small shot from a shot-gun at close range was received in upper third of anterior aspect, carrying away soft parts and parts of tibia and fibula, producing three fractures in shaft of tibia. An attempt to preserve the limb promises to be successful.

Dr. Buchanan read a paper on "Atypical Forms of Onset in Pneumonia."

Dr. Atkinson read a paper on the "Place of Alcohol in Medicine."

Next meeting will be held April 5, 1906.

J. B. BUCHANAN, Secretary.

The regular meeting of the Warren County Medical Society was called to order by Vice-president Dr. D. A. Campbell in the doctor's club room, at 10 o'clock a. m., April 11th. Thirty-one of the forty-four members were present.

Dr. Briggs read a paper on "*Abscess and Tumors of the Brain*." Dr. W. C. Simmons reported a case of abscess of the brain in a young negro woman which developed with great rapidity and terminated fatally. Dr. T. W. Stone said that more attention should be paid to "running ears," as in this the foundation was most frequently laid for abscess and meningitis.

Dr. Briggs reported a very interesting case of acute mania due to tertiary syphilis. Dr. Stone said that in his experience when the mind and sensibilities are impaired by gummata, treatment should be pushed, and improvement is marked; while in paralysis from syphilis the prognosis is always bad. He especially emphasizes the fact that insomnia from intense headache in syphilis is usually caused by developing gummata, and the treatment, if pushed heroically, will usually abort at this stage.

Dr. E. Rau emphasizes the importance of early incision in purulent otitis media, both for the preservation of the ear and to prevent infection of the mastoids and brain. Tumors of

the brain can be fairly well located by the ophthalmoscope.

Dr. D. A. Campbell read a paper on "*Cerebral Thrombosis*." (This paper will appear elsewhere in the JOURNAL.) Dr. G. E. Huddle, in opening the discussion, reported six cases of depressed fracture of the skull due to traumatism, operated and recovered.

Dr. T. W. Stone reported three cases of cerebral embolism. (1) Female, age eleven, in the third week of a severe typhoid, threw her hands to her head, became very cyanotic, with marked dyspnea; died in a few hours. (2) Followed forceps delivery in a middle-aged woman, had subsequent septic temperature with slight phlegmasia alba dolens; on the tenth night an attack similar to the preceding caused her sudden death. (3) A young primipara developed phlegmasia alba dolens following labor; afterward she developed a primary embolism at the bifurcation of the brachial artery. Subsequent to an amputation above this point she had an embolism of the brain and sudden death.

Dr. J. H. Souther read a paper on "*Acute Meningitis*." (This paper will appear elsewhere in the JOURNAL.) In opening the discussion, Dr. A. T. McCormack said that he felt that the present generation of surgeons would see cases of meningitis operated as regularly as abdominal cases are now operated. He thought that the profession should frankly realize that the present methods of treatment of meningitis are a failure, and that incision, counter-incision and irrigation might hold some promise of relief. He realizes the difficulty of technique, but does not feel that they were any greater, or even as great, as those confronting the abdominal surgeons twenty years ago.

Dr. J. H. Blackburn said that he had been paying special attention to the subject of tubercular meningitis, which could be distinguished from simple meningitis by its insidious onset and irregular but low temperature. He spoke of Alessandri's successful operative work where the brain area infected with tuberculosis was small. He called attention to the fact that spontaneous recovery had been noted in a number of these cases.

Drs. A. T. McCormack, E. Rau and J. H. Blackburn, who were appointed a committee to draft resolutions in regard to the nostrum evil, reported the following, which upon motion was unanimously adopted:

"Whereas, Through the carelessness, negligence and ignorance of the doctors and people of this country and the criminal cupidity of certain low-grade drug manufacturing establishments, the country has been flooded with secret nostrums, many of which are highly dangerous to innocent users, and many other entirely useless and inert, thereby causing

harm to persons using them by delaying the proper treatment of their diseases; and,

"Whereas, The American Medical Association has established a Council on Pharmacy, composed of eminent, disinterested pharmacists, whose duty is to analyze drugs and pharmaceutical preparations from reputable manufacturers, so that the profession may be properly advised of the constituents of such preparations,

"Now, therefore, be it resolved by the Warren County Medical Association that we hereby endorse the creation of the Council on Pharmacy by the American Medical Association and its plans, rules and purposes, and that we pledge the people of Warren County that its physicians will not administer or prescribe any nostrum or medicament the exact contents of which are not known to all men."

The treasurer was directed to pay the Secretary of the State Association \$84.00, the entire dues of the society for 1906.

Respectfully submitted,

A. T. McCORMACK, *Secretary*.

BOOKS RECEIVED.

NURSING, ITS PRINCIPLES AND PRACTICE.

BY ISABEL HAMPTON ROBB.

E. C. Koeckert, Publisher, Cleveland, O.

DISEASES OF INFANCY AND CHILDHOOD.

BY ALFRED CLEVELAND COTTON, A. M., M. D.
J. B. Lippincott Company, Philadelphia.

PHYSICAL DIAGNOSIS.

BY EGBERT LE FEVRE, M. D.

Lea Bros & Co., Philadelphia and New York.

MODERN CLINICAL MEDICINE.

DISEASES OF METABOLISM AND OF THE BLOOD
—ANIMAL PARASITES—TOXICOLOGY.

EDITED BY RICHARD C. CABOT, M. D.

D. Appleton & Company, New York and London.

TAMPONS IN CHRONIC CONSTIPATION.

In considering the treatment of chronic constipation J. A. MacMillan, in *Medicine*, recommends rectal tampons in atonic constipation. This tampon should be made of absorbent cotton, cheese cloth or lamb's wool, and should be large enough to cause some distension of the bowel. It should be inserted through an ordinary proctoscope, and packed by means of a long forceps. The best location is at the recto-sigmoidal junction. A piece

of string, of course, should be attached to the tampon, in order to facilitate its withdrawal after it has remained in place for from two to six hours. This treatment should be carried out every other day at first, and the interval between the treatments should be gradually lengthened as improvement takes place. The value of this treatment, according to the author, is due to the distension of the intestine. He records success in the majority of the cases in which he has tried it, although not in all of them. In most of these cases enemata and cathartics should be discontinued from the first, in order that regularity of stools may be established.

NEWS ITEMS.

Dr. C. Z. Aud, President of the Kentucky State Medical Association, announces the following appointments for Kentucky on the Council on Medical Education, A. M. A.:

W. H. Wathen, Louisville, Chairman, to serve for three years.

Lewis S. McMurry, Louisville, to serve for two years.

David Barrow, Lexington, to serve for one year.

Dr. E. L. Pearce announces the removal of his office to the Hast Building, 713 Fourth avenue, Louisville.

Dr. J. Garland Sherrill, Chairman of the Council A. M. A., went to Ft. Worth, Texas, on April 24th, to present a paper by invitation to the Texas State Medical Association.

In the March number of the JOURNAL the price of Fox's "Diseases of the Eye" was advertised as \$1.00 net. We are advised by the publishers, D. Appleton & Company, that this is an error, the correct price being \$4.00 net.

The Kness & Owen Company, manufacturers of glyco-thymoline, an advertisement of which is carried in the JOURNAL, desire to announce that they are no longer members of the Proprietary Association of America. They were members of this Association at one time, but withdrew last year, when it became apparent that this Association was antagonistic to the medical profession of America.

Doctors Cartledge and Bullitt, associated in partnership since 1898, announce the dissolution of their partnership, taking effect April 1st, 1906.

Dr. Cartledge has taken an office at The Gaston, 654 Fourth Avenue. Dr. Bullitt will continue his office at No. 205 West Broadway until July 1st. After that time his office will be removed to 320 West Broadway, in the Weissinger-Gaulbert Annex, now nearing completion.

End

